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« EDITORIAL »

Merchant Marine Policy Must Be Continued

IT MAY be the very extremity of the depression will turn out to be a blessing in disguise in bringing all nations to a realization that the ultimate welfare of each can only be achieved by subordinating selfish national interests and by adopting the principles of justice and fair play. Any other attitude will be fatal to the success of the impending economic conferences.

Under this definition we hold that the United States is fully justified in carrying on with its present merchant marine policy. How can any nation under any circumstances claim that it is unfair or in any way detrimental to the interests of the world at large for the United States to possess a merchant fleet large enough to carry 50 per cent of its own foreign commerce? At the present time not more than 34 per cent of this commerce is carried in American ships.

The very success of the merchant marine act of 1928 in carrying out the national policy has aroused widespread attack. From all sides, and particularly from Great Britain, perhaps because she appreciates more fully the mettle of Americans at sea and the soundness, the practical workability of our merchant marine policy, come frantic cries that a stop must be put to this renaissance of American shipping—that Yankee ships are bringing them to ruin. The attitude used to be not long ago, that we had neither the skill to build nor the ability to operate ships. Now having looked over our recent liners, the objection is that they are much too good—that the trade does not warrant such magnificent ships.

Why all this hue and cry against an American merchant marine? How can any sensible or sincere man, whatever his nationality and no matter how deeply interested he may be in shipping under his own flag, say that we should be content with controlling only the movement of our domestic commerce; that we should sit quietly by completely satisfied to let the ships of other nations compete, as they might see fit, for the transport of our own people and the goods we sell and buy abroad?

The principle of our merchant marine policy is simple—that we do not propose to be completely dependent, as once we were to our own great loss, solely on foreign ships; that to make a merchant marine of our own possible we propose to aid our ship operators so that they will be in a reasonably competitive position with reference to foreign shipping; that we propose to continue this policy to the point of carrying one-half of that trade to which we are a party. How can there be any just claim of unfairness about such a policy?

The attacks made do not deal accurately with all of the facts. It would seem to be unnecessary to reiterate that the building of the American emergency merchant fleet during the war was undertaken, as the very name indicates, as an emergency measure in time of war and at the earnest pleas of Great Britain and her allies in order to save the world from the menace of the German submarine. To claim now that the United States has expended the colossal sum of $3,000,000,000 to place a merchant marine on the seas to compete with the privately owned ships of other nations is sophistry of the rankest sort. Building the emergency fleet served the primary purpose of making it clear to our late enemy that with the billions of the United States to draw upon ships could be built faster than they could be sunk. Would those who now protest have had us do otherwise?

Ever since the merchant marine act of 1928 went into effect the whole world knows that the overseas American merchant marine has taken on a new life and a verility which speaks well for the future. The aids afforded have been calculated to offset the differences in the cost of building and operating ships under the American standard of living. In this there is no government aid to destroy competition.

In the coming economic conferences it will be folly for Great Britain or any other nation to expect a reversal of the sound policy which has made possible such a splendid beginning in building up a merchant marine adequate for our national needs.

Need Replacement Program For Cargo Shipping

By Homer L. Ferguson*

ALL will probably agree that for any shipyard the really desirable condition is a steady flow of work, with sufficient of it repetitive to make it possible to take advantage of some of the economies of mass production so far as applicable to ships.

It is interesting to examine the history of shipbuilding in this country as exemplified, for instance, by our shipyard at Newport News. We have had 355 hull numbers since the contract for hull number one in July 1890. These vessels are divided as follows:

Seagoing passenger ships	51
Seagoing freight ship	50
Oil tankers	31
Destroyers	29
Battleships	13
Aircraft carrier	1
Cruisers	7
Gunboats	3
Monitor	1
Coast guard cutters	7
Cable layer	1
Yachts	10
River and bay steamers	7
Ferry boats	5
Dredges	5
Tugs	13

The remainder being made up of miscellaneous contracts for scows, barges, car floats, etc.

The only instances of building at the same time any considerable number of ships exactly alike, or nearly so, have been one set of eleven destroyers and another fourteen during the war, and a set of eight oil tankers built about the same time. Since the war, the largest number of sister ships built in any one yard is four—the Grace ships and the Export ships.

As illustrating the wide variation in types of vessels, in 1926 we built five passenger steamers, one dredge, six yachts, three barges, one carfloat, and two tugs. Some American yards may have been able to obtain a uniform flow of similar vessels, but we have not.

There have been startling variations in deliveries during various years, running from 10,000 tons in 1924 to 156,000 tons in 1917.

Hardly Any Cargo Ships

Since 1919, eliminating oil tankers and the two "Seatrain" vessels, no seagoing freight ships have been built with the single exception of the Southern Pacific Steamship EL OCEANO delivered in 1925 by the Federal Shipbuilding Co. It seems remarkable that the wealthiest nation in the world can find it possible to refrain for a period of ten or twelve years from building seagoing vessels for general cargo service. A ten year naval holiday is perhaps conceivable, but a ten year holiday in merchant cargo vessels seems hardly possible. Of course the explanation is that we have been operating on the excess cargo ships built during the war at enormous cost.

The Jones-White act has given us a program of passenger ship construction which has kept us fairly busy and which has now given us about all the ships of that type we can well digest, particularly in the face of the depression; but after all the principal function of passenger ships is to make the contacts, accomplish the commercial transactions, carry the mail and passengers, do the advertising, and start the freight movement which must ultimately be the back bone of the enterprise if it is to endure.

A replacement program of cargo ships is needed now, and such a program would result in lessening the cost of the ships. Our investigations indicate that the saving in duplicate ships will run up to above twelve per cent when the order calls for six or more. In the case of two ships built at the same time, or at nearly the same time, there is a saving of at least five per cent.

Value of Replacement Program

So far as we are concerned, the value of the replacement program now is that unless something is done quickly many of our shipyards will have to close and dismiss, to join the unemployed, thousands of skilled workmen and hundreds of trained technical men. The matter of later re-opening the yards and starting the wheels turning from a dead stop will be so expensive as to bring out in strong relief what a judicious replacement program would have done in lessening the cost. If anyone thinks not, let him consider for a moment our experience during the war.

The need of a definite replacement program is quite as great on the part of the owner in the long run as it is for the builder. Not only do ships wear out in a comparatively short time, but they become obsolescent even before they wear out and the constantly changing trades demand larger and faster types. This has been the history of the business.

It has recently been stated in the press that the United States has spent billions in subsidy, having reference to the war-built fleet sold at prices far below the cost of production. Our friends abroad were very anxious to have us build a great fleet in time of war when it looked as if the German submarines were about to win the war.

We should not allow the basic facts regarding a merchant marine to be ignored by those in charge of the government of our own country. The war-built fleet was authorized as an emergency measure and the greater part of the expenditure was made necessary by sixty years of neglect before the war, during which time we should have provided ourselves with means of carrying a fair share of our own commerce.

A Vast Unnecessary Loss

It is likely that about $2,000,000,000 was the price we paid in this particular connection, so that the principal of the United States bonds and their interest provide a proper measure of the cost of our neglect and make the sums to be expended in mail contracts appear insignificant by comparison. Not only that, but our merchants and farmers whose memories go back further than fifteen years know of the vast sums lost by them through inability to market our products when Europe with her merchant marine was busy with the war. Not only that, but the great majority of the tonnage constructed under the Emergency Fleet Corp. was not ready for service until long after the armistice.

It is argued now in some quarters that there should be no further scrapping of the war-built deadweight tonnage fleet. We cannot agree that the same principles do not apply to the shipping business as to any other business, nor that profits nowadays can be earned with any kind of vessels except up-to-date vessels of suitable design.

If our merchant marine is worth while we must keep it up and it would seem that now would be a good time to build the ships needed. Our foreign trade has assumed a new significance in these times and the development of that trade is one of the roads leading to recovery. The building of ships now would provide work for thousands of men in shipyards throughout the country.

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*Address by Homer L. Ferguson, president and general manager of the Newport News Shipbuilding & Dry Dock Co., delivered before the Sixth Annual Conference on the Merchant Marine at Washington, Jan. 4, 1933.

Nineteen Canadian Pacific liners during 1932 rolled up a total of nearly 1,500,000 miles. Saving even 1 cent a mile, in fuel for instance, will amount to $15,000, and at 10 cents a mile would amount to the substantial sum of $150,000.

Sixth Merchant Marine Conference

Declares for a Vigorous Shipping Policy

A CONTINUITY of effort at regular intervals is in itself a potent factor in the accomplishment of any purpose. This was clearly recognized at the conclusion of the sixth national conference on the merchant marine held in Washington, Jan. 4 and 5, in the resolutions which were unanimously adopted. It was the sense of the conference that it is of the highest importance for those interested in the development of the American merchant marine and the country's foreign commerce to convene annually at such meetings. To the United States shipping board was extended the appreciation of the delegates for its efforts in preparing and holding the conference and the hope was expressed that these efforts would be continued. It was also suggested that the shipping board urge upon the shipping industry a still more active interest in future conferences.

In adjourning the conference and in replying to the concluding resolutions, Chairman T. V. O'Connor expressed to the delegates the thanks of the shipping board and assured them that the board will in the future, as it has in the past, do everything it can to foster and develop the American merchant marine.

Resolutions Committee Reports

Toward the close of the morning session on Jan. 4, Chairman O'Connor, on a motion proposed by H. G. Smith and approved by the conference, appointed a resolutions committee consisting of H. G. Smith, J. Caldwell Jenkins, N. O. Pedrick, Ira A. Campbell, Charles Swan, Capt. W. J. Petersen and Malcolm H. Stewart.

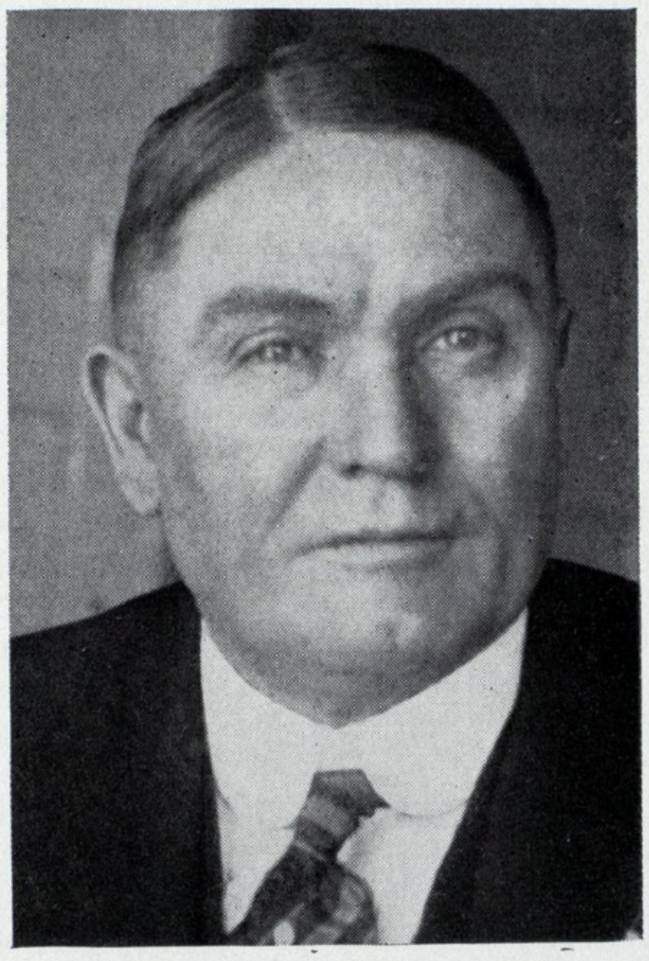
This committee made its report in the form of six resolutions which were all approved by the conference before its adjournment at 1:30 p.m., Jan. 5. The fifth of these resolutions has been referred to above. The sixth resolution was one of thanks to the chamber of commerce of the United States for the use of the halls and facilities of the chamber for holding the conference. The first resolution was an expression of the sorrow of the conference at the deaths during the past year of Senator Wesley L. Jones, Admiral William S. Benson, Edward C. Plummer, Capt. Robert Dollar, William H. Todd, Herbert B. Walker and Capt. C. A. McAllister. Deep appreciation of the great services these men rendered to the building of the American merchant marine, was also expressed.

The second, third and fourth resolutions are quoted in full as follows:

"Resolved, that we hold that the truth is:

"Foreign trade is absolutely esential to the prosperity of the United States. It provides for the disposition of the surplus products of agriculture and industry, and constitutes an important source of employment for the American people.

"No nation has ever developed its foreign trade except through its national shipping. American ships are therefore essential to the proper expansion and control of the country's foreign commerce.



T. V. O'CONNOR
Chairman, United States Shipping Board

They are equally essential as naval and military auxiliaries in a time of national emergency.

"Because of the higher wages paid American labor the costs of building ships in American shipyards and of operating them under the American flag are greater than those of foreign ships: In consequence, an American merchat marine can be had and operated only by some form of government aid which shall equalize the differentials between American and foreign costs.

"Congress has granted such aid through the construction loan and long-term mail contract provisions of the merchant marine act, 1928. That act declared a national shipping policy and recognized not only the need of aid but the definite and assured continuance of that aid over a period of years. The loans are repayable with interest and, with the mail pay compensation, find ultimate disbursement to American labor in every state of the nation through the construction of new ships and the costs of their operation, thus helping to maintain the high standards of American living.

"Through the aids thus granted, new ships to the value of $175,000,000 have been built in American shipyards and have furnished employment to thousands of workmen during a period of serious economic depression.

"The essential trade services to foreign ports have been developed to a high degree of efficiency and have brought incalculable benefits to the American people through the promotion of foreign commerce.

"The mail contract system has resulted in a large economy. The present annual expenditure, less than the cost of one first-class battleship, is far smaller than the losses formerly incurred in government ownership and operation.

"The permanent operation of American ships in foreign trade and the maintenance of our merchant marine to the high standdards necessary to meet foreign competition is contingent upon a continuance of the aid granted by the act of 1928.

"There is no alternative. A reduction in such aid will destroy the American merchant marine and result in a loss of American commerce, to the detriment of the country's welfare and prosperity.

"These aids must be held and properly applied if America is to prosper."

Should Adopt Safety Convention

"Whereas, eleven of the principal maritime nations are now enforcing the international convention on safety of life at sea; and

"Whereas, failure by the United States to ratify the convention will subject American ships in foreign trade to serious disadvantages, with delays and higher costs in foreign ports; and

"Whereas, both the third and fifth national merchant marine conferences recommended ratification of this convention; now therefore, be it

"Resolved, That the sixth national conference on the merchant

marine urges the prompt ratification of the convention by the United States, and that copies of this resolution be sent to members of the senate committee on foreign relations."

Foreign Reconditioned Ships

"Whereas, certain old American-built vessels have been sold abroad, reconditioned in foreign shipyards at low cost and subsequently redocumented under the laws of the United States; and

"Whereas, the use of such vessels in competition with American-built or American reconditioned vessels is seriously prejudicial to the entire American shipping industry and such practices should be prohibited; now therefore, be it

"Resolved, that this conference favors a change in existing law which will prevent the redocumentation under the laws of the United States of American-built vessels which have been sold to aliens and reconditioned in foreign shipyards."

Only one of these resolutions, the one urging the prompt ratification by the United States of the international convention of safety of life at sea, was adopted in the face of any opposition whatsoever. Opposition to adoption of the safety convention was voiced by Andrew Furuseth of the Seamen's union. To meet this attack, an able defense of the resolution was offered by Rear Admiral John G. Tawresey, C. C., U. S. N. (ret.). Admiral Tawresey said:

"Mr. chairman and delegates. This resolution refers to the convention on safety of life at sea that was signed in London in 1929, signed unanimously by the delegates of 18 nations. They included representatives of every industry in any way connected with shipping; they included numbers of government officials and they included representatives of labor, of seamen, of masters and of all who earn their living at sea.

"I am not going back to the 1914 convention. It is not necessary to explain the misunderstandings of Mr. Furuseth relative to that convention, relative to the recognized procedure in exchanging views in preparation for a conference, relative to furnishing an agenda for the conference. I do not see how he could be an efficient delegate when he suspected the good faith of his fellow delegates to that conference.

"He has spoken eloquently about some things to which we all agree, to which there is no objection. For others, I wish to point out that this convention does not do the things that he says it will do. I can reassure him that it does not repeal any United States statutes now in force. The convention expressly limits itself to the subjects that are treated of in the convention, and there have been three years, gentlemen, to study those subjects and to know what the convention does, and it is not necessary to come here and say that if it repeals this law or repeals the other law, then it will be detrimental.

"I assure you there is nothing whatever in that convention about the wages of seamen. There is nothing whatever about the returning of deserters. There is nothing whatever against medical inspection or anything that is contrary to any of our immigration laws. All of those things are entirely outside the convention. Whatever force our laws have, they will have after ratification just as much as they have at present.

"Mr. Furuseth spoke of congress surrendering its rights to legislate for American vessels and for foreign vessels. He is entirely wrong as to American vessels. There is nothing in the treaty that in any way limits the power of congress to legislate conditions for American vessels, except that the safety provisions shall not be less than those stated in the convention. There is no upper limit. The rules of the convention are minimums. They do not establish maximums.

Vestris Disaster Referred To

"Mr. Furuseth mentioned the VESTRIS. He has mentioned it before. I assure you, gentlemen, that had this safety convention been in full operation in 1928 the VESTRIS would not have been lost. I also assure you that the VESTRIS was inspected by the United tates authorities in 1928, just previous to her departure on her last voyage, and was inspected under American law and in exactly the same way as American ships were inspected at that time; therefore, we do need the additional safeguards that are provided in this convention.

"The convention does not restore any law that has been repealed.

"I resent the charge of inefficiency of personnel of American ships. That matter has been discussed before. We have had witness after witness tell us that the ships are efficiently manned. We have a long list of rescues at sea, where their skill and efficiency has been tested and they have not been found wanting.

"The convention is now in operation in 11 of the principal maritime countries of the world. It applies only to foreign trade. Our ships in foreign trade must visit the ports of these other countries, and we must conform to the regulations and practices in force there. Our own legislation can extend merely to our own ports, and the convention now provides for the first time uniform international regulations that can be understood by all, that can be obeyed by all. It is a protection to the American ship and to her crew when she goes into a foreign port. If we do not ratify the convention our ships cannot have that protection, they cannot have the certificate, they will be subject to all kinds of delays and will be subject to the enforcement against them of the convention provisions as understood by the inspectors in the foreign port, instead of having a sympathetic and helpful enforcement by our own administration in full possession of the facts as they exist in this country. We owe it to the citizens of our country who travel by sea to adopt these measures for increased safety.

"The convention treats of the prevention and extinguishing of fires, and we had only in yesterday's paper an instance of fire that the convention would have helped to prevent.

"I, therefore, urge you to lay aside any feeling of doubt as to the benefits of the convention and to lay aside any feeling of sympathy on account of supposed conditions under which our seamen serve, because the convention does not treat of that; it treats of increased safety for the seamen, for the shipowner, for the passenger and for our foreign trade, and I beseech you, gentlemen, to pass this resolution."

An extension of the admiral's remarks was offered for insertion in the record. There was no question at any time as to the mood of the conference in regard to the resolution favoring the adoption of the safety convention and in its final approval no further objection was presented.

The conference was called to order at 10:15 a.m., Jan. 4, by T. V. O'Connor, chairman, United States shipping board. In his opening address which is quoted in full, the chairman said:

Address by Chairman O'Connor

"Members and guests of the conference: In the name of the shipping board I extend a welcome to the members of the conference and to the distinguished guests who have honored us with their presence today.

"Before we begin our deliberations, it might be well to remind you that this is a conference of representatives of the American shipping industry, and not a conference of members of congress and government officials. Although called by the shipping board, the meeting belongs to the American shipowner, the American shipbuilder, the American exporter and importer, and to the delegates from various other groups interested in American shipping and American foreign trade.

"Because these annual gather-

ings are held under shipping board auspices, it has become the custom for the chairman of the board to act as official "keynoter" by making a few introductory remarks.

"Our first national conference was called in 1928, when the famous Jones-White act was in the making on Capitol hill. The board at that time wanted your views for submission to congress in connection with certain provisions which we all thought should be written into the bill. Your views, put into concrete form at the first national conference, were duly transmitted to congress. The Jones-White act, the most important piece of shipping legislation ever enacted in this country, became a law on May 22, 1928. You have reason to be proud of the part you played in helping congress to shape an act that was designed to keep our flag on the sea for all time.

"Today the Jones-White act is under attack, both here and abroad. Without mincing words, we can say that those who want to nullify its provisions are working to scuttle the American merchant marine. The would-be scuttlers fall into two groups—those who know what they are doing, and those who are the innocent dupes of the master-minds who direct the attack.

"The scuttlers have been very busy ever since the Jones-White measure was enacted into law. Whatever their alleged motives, they have the foreign viewpoint. They are opposed to American shipping. They prefer to have our foreign trade carried in foreign bottoms, despite the vast freight and passenger revenues, amounting to hundreds of millions of dollars annually, which under their plan would flow abroad to enrich our foreign competitors. They are not concerned with the further development of American overseas markets. They are content to leave the American navy without adequate auxiliaries in time of war. The destruction of the American shipbuilding industry means nothing to them. Rather than have the government aid the merchant marine by a modest outlay each year, they would prefer, in time of national peril, to see the country spend billions of dollars in an overnight effort to meet a vital emergency.

Attempt to Justify Attacks

"An attempt is made to justify these attacks on the ground of economy. The persons making the attacks claim that the country could save $25,000,000 a year by abolishing the ocean mail contracts. In urging this claim they disregard the other side of the ledger. If they looked at the other side, they would see that hundreds of millions of dollars stand to the credit of the nation every year from the possession of a strong merchant marine. This sum is spread throughout our 48 states and benefits both labor and industry.

"To abolish the ocean mail contracts is to abolish the merchant marine. This conference can do nothing more constructive than to emphasize the necessity of continuing the present federal aids. To continue them is the only true economy. To abolish or curtail them would in the long run prove the rankest sort of extravagance. We must drive this truth home to the American taxpayer and to our lawmakers in congress.

"I have sounded the keynote as I see it. We have with us a number of speakers who will go more fully into the matter."

Speakers at the Conference

A roster of the speakers that followed during the course of the sessions of the conference emphasizes its significance as a powerful force in the continued development of an American merchant marine adequate to the needs of our commerce and to national defense. The speakers were: Roy D. Chapin, secretary of commerce; Henry L. Harriman, president of the chamber of commerce of the United States; Clay Stone Briggs, congressman from the state of Texas; Dr. Edmund A. Walsh, S. J., vice president of Georgetown university, and regent of the School of Foreign service; Roy S. Copeland, United States senator from New York; W. I. Glover, second assistant postmaster general of the United States; James E. Emery, general consul, National Association of Manufacturers; Willard F. Place, assistant vice president, New York Central lines; J. Howland Gardner, president, The Society of Naval Architects and Marine Engineers; A. W. Robertson, chairman of the board, Westinghouse Electric & Mfg. Co.; Homer L. Ferguson, president, Newport News Shipbuilding & Dry Dock Co.; Fred I. Kent, vice president, Bankers Trust Co., New York; N. O. Pedrick, general manager, Mississippi Shipping Co.; Andrew Furuseth, Seamen's union; Commissioner S. S. Sandberg, vice chairman of the United States shipping board; Charles Francis Adams, secretary of the navy (brief remarks); Will R. Wood, member of congress; General John J. Pershing (a letter read before the conference); Capt. Samuel W. Bryant, U. S. N.; J. Caldwell Jenkins, vice president, Black Diamond Steamship Co.; Malcolm M. Stewart, Middle West Foreign Trade committee; Capt. W. J. Petersen, Pacific American Steamship association; James C. Stone, chairman, Federal Farm board (speech read by F. B. Bomberger); Joseph P, Ryan, president, International Longshoremen's association; Cleveland A. Newton, general counsul, Mississippi Valley association; R. R. Massey, American Merchant Marine Library association.

Official proceedings of the conference, including all speeches in full, were published in a special supplement to the *United States Daily* in its issue of Jan. 16.

H. G. SMITH
President, Council of American Shipbuilders

Outlook for Foreign Trade

Mr. Chapin, the secretary of commerce, spoke on the outlook for foreign trade and pointed out that all the nations of the world were in the same predicament with respect to foreign trade, and that, therefore, there must be some sort of international co-operation. The nationalistic character of the barriers to resumption of normal world trading, the secretary said, makes it impossible to correct the situation quickly and it can only be done gradually by an elimination of the causes that made these emergency measures necessary.

One thing that can be done, he said, is for the nations of the world to set their courses in the right direction and an opportunity for doing this will be offered by the forthcoming world conference on monetary and economic questions to be held next summer, though he warned against the fallacy of believing that it will be a cure all for international trade. He expressed the hope that the difficult question of war debts which is intimately connected with trade revival, may be settled at the time the economic conference begins. "If this can be done," he said, "One very great step toward world recovery would have been taken and the economic conference will have a measurably greater prospect of solving the problems with which it is confronted."

Mr. Harriman spoke on matters affecting the welfare of the shipping industry in which the chamber of commerce of the United States has been actively interested, including its most recent declaration, specially urging the importance in the public interest of continuing the policies under which American shipping has in recent years made splendid progress; the necessity of supporting American ships by American shippers and travelers; the necessity for renewal of existing mail contracts with efficient contractors on a basis which will provide for a continuance of all essential services. The chamber also has strongly supported the elimination of government competition with private enterprises in the shipping field, protection of coastwise trade against foreign encroachments, removal of handicaps to American shipping and uniformity of ocean bills of lading.

In concluding his remarks, Mr. Harriman said, "It is gratifying to see steamship lines under the American flag rendering passenger and freight service of the highest quality and dependability. The policies which have made this possible are the result of awakened consciousness of Americans to the importance of our overseas shipping and their determination that a reasonable portion of our foreign commerce shall be carried in American bottoms. Certainly there is every reason that these policies should be maintained, and to that end I pledge the support of the chamber of commerce."

Representative Briggs of Texas, said in part:

Our Merchant Marine Policy

"Our helplessness for want of an American merchant marine, having been demonstrated by the war, and our dependence upon ships of foreign flags for the movement of foreign commerce, and at a cost running into billions for trade losses and cost of building yards, etc., in trying to provide an emergency fleet overnight, prompted the congress to determine that the American people should never again be without an adequate merchant marine.

"The ocean mail contracts pointed the way to a discontinuance of government operation, by not only reducing the government operating costs, but also insuring the maintenance of all essential trade route services by private operators, who not only agreed to carry all mail offered by the government at no extra cost, but also obligated themselves to build new ships and modernize the fleet, and to build them in American yards, even though the cost would be materially greater than if built in yards abroad; to build them according to plans and specifications approved by our navy, so that they would be available as auxiliaries.

"The government is also permitted to commandeer any of the ships in time of war or national emergency and to pay only the fair value at the time of taking, without regard to any enhancement of value by causes necessitating the taking. To facilitate service they are also liable to rate regulation.

"Forty-four mail contracts have been made. Under these new vessels costing $300,000,000, have been provided for by contract with privately owned lines, with reconditioning expenditures for other vessels of $22,000,000. The United States government today has the second largest merchant marine in the world; rising from 2 per cent in 1913 to 12 per cent in 1931. This great, magnificent fleet, carrying about 35 per cent in value of our seaborne foreign trade earns about $300,000,000 a year in freight revenue that used to be paid to foreign lines and which used to be spent abroad, but which is now spent in the United States in maintaining and supporting activities here and giving employment to thousands of our own citizens.

Fair Ocean Freight Rates

"Ocean freight rates have been held to the minimum by the existence of this great American fleet and it has resulted in a saving to American farmers, manufacturers and shippers, estimated at from $1,500,000,000 to $2,000,000,000. We can deliver our goods in any world market in our own ships, and are no longer dependent on foreign-flag vessels. We have a naval auxiliary fleet, something that we never had before. We have insurance against a repetition of the huge costs in time of war of building a fleet, and we have insurance against the delays and loss of trade experienced for want of ships.

"Let us put this in concrete form, so that the people can understand it. To give some idea of what this means, it might be said that the annual ocean freight normally paid by American commerce amounts to between $700,000,000 and $800,000,000 a year. Merely a 10 per cent increase in ocean freight rates would levy a toll of from $70,000,000 to $80,000,000 a year on American commerce, and some authorities think that it would amount to as much as 20 per cent.

"Remember, the American people are entitled, not only to an adequate and modern American merchant marine, with dependable service, but to such service at the lowest rates possible consistent with a fair return upon the investment. Remember, too, that unless you bring home to the American people, how critical the situation is today with reference to their merchant marine, unless you acquaint many of your new members of congress with the facts regarding the merchant marine of this country—how necessary it is, what it has cost to create, what it will cost this government if it is destroyed—unless you do these things, I say you are in danger of losing what this country and the government has done within the last 12 or 15 years, to give to the United States the second greatest merchant marine on the high seas."

Ships and National Economy

Dr. Walsh of Georgetown university, in speaking on the function of the merchant marine and national economy, referred to the lessons of history in justification of our present merchant marine policy and met the plaint of foreign critics of our growing merchant fleet by saying in part:

"It has further been objected that American construction activities are increasing the surplus tonnage of the world and thus far increasing the disproportion between supply and demand.

"From 1922 to the present day, the total number of ships built by Great Britain, the United States, France, Italy, Japan and Germany, has reached 2100 vessels, aggregating 14,000,000 tons. Our contribution to that alleged surplus was 96 ships of ocean-going type, of 2000 gross tons and over. On a parity basis we might justly have built 300 vessels. Our total new tonnage was only 840,000 tons out of those 14,000,000 tons, whereas a parity basis would justify over 2,000,000 tons. We have no REX, no EUROPA, no BREMEN no NORMANDIE—only an occasional MANHATTAN and a rapidly detriorating LEVIATHAN for overseas service.

"I fear that we shall never be able to fully satisfy all our critics until we starve our merchant marine back to its pre-war dimensions, when we had a bare 116 American-flag ships of 626,000 tons. And of those but 19 merchant ships, of less than 200,000 tons, were operating on Atlantic and Pacific routes.

"While readily granting Great Britain's need of special facilities because of her far-flung possessions and her insular position, I still feel that the figures here quoted do not justify the fears and protests recently expressed from London. It is, then, neither an unreasonable chauvinism nor an unsportsmanlike gesture to wish you courage, perseverance and eventual success in your laudable enterprise—the renaissance of an adequate American merchant marine with the concomitant restoration of our self-respect on the high seas."

The address by Homer L. Ferguson is published in full on page 10. Abstracts of the remaining papers presented before the sixth national conference on the merchant marine will be published in the March issue.

Water Transportation and Railroads

Services Should be Co-ordinated

By Elisha Lee

Vice President, The Pennsylvania Railroad Co.

MUCH attention has recently been directed toward the existing railroad situation, so far as it has been affected by competitive highway and waterway transport.

I have on a recent occasion been privileged to more or less publicly discuss the condition relating to highway transport, as to the need for and steps being taken to secure adoption of reasonable measures to terminate the present abuse of the highways, the prevailing disorderly and wasteful competition, and protect both the railroads and the highway trucking industry in their own rightful spheres of service.

In a discussion of competition by water transportation, some general remarks apply here equally as well as in a consideration of the highway situation. The railroads are our most comprehensive and valuable means of transportation, combining low costs, efficiency, convenience, dependability and continuous operation throughout all seasons and under all weather conditions, to a degree no other agency approaches or is likely to rival, as far as we can see ahead.

Under Competitive Conditions

This in no way precludes recognition of the usefulness of transportation by highway, waterway, airway or pipe line, in their proper fields. It does, however, emphatically remind us that the railroads cannot, without danger to the public welfare, be subjected to uneconomic, unregulated or subsidized competition, or to discriminatory policies at the hands of the government. The railroads have no doubt of their ability to live and progress under competitive conditions, provided only the terms and conditions are just and equitable to all. They freely concede these other agencies a place in the general scheme of distribution, and believe that the present and future needs of the country require their sound development side by side with the railroads, and largely in close co-ordination with them.

Regulation of railroad rates dates from the interstate commerce act of 1887, which created the interstate commerce commission, and supplemented in 1906 by the Hepburn act, giving the commission definite power to prescribe rates. Today, few, if any, responsible railroad officers do not accept regulation of railroads as correct in principle, although many of its practices would seem to require change. While originally intended primarily to protect the public against discrimination, informed public opinion today is in substantial agreement that, properly administered, regulation has most important possibilities as a stabilizing and constructive influence upon the railroads.

Upon this premise, I suggest consideration, first, of the chaotic conditions with respect to rates which have developed in the intercoastal shipping trade between our Atlantic and Pacific ports, and which are greatly intensifying the previously existing competitive influence of the Panama canal.

Regulation of Intercoastal Rates

The significance of regulation has been recognized by the intercoastal lines as early as 1920, when the first intercoastal conference was formed, representing voluntary regulation. Of course, there was a reason for such action and exploring this phase of the matter a bit, it becomes evident such voluntary regulation was in self defense against the severe competition and reckless bidding for traffic existing among the intercoastal lines at that time, brought about by a very heavy excess of cargo space, in part the aftermath of the war, and in part the effect of a commercial depression prevailing then.

In the total absence of governmental control over port to port rates, the ensuing scramble for business had become far more acute and destructive than ever before experienced in the history of the trade. Consequently the time-worn theory that if they did not hang together, they would hang separately was brought into play and a conference formed on the initiative of the intercoastal lines themselves.

However, since there was no governmental or other similar force to insure the continuance of such a conference, it lasted but two years and in 1923, it dissolved with the result that all lines again quoted different rates and neither shipowners nor the shippers knew exactly where they stood. A new conference was again formed in 1923 but in 1925, it died a natural death due to one line and then another withdrawing. Still a third conference was formed in 1927 but again ended in failure and was abandoned in February, 1931. After a hectic year of open warfare beginning early in February, 1931, the intercoastal lines declared a truce and organized a new conference, effective March 1, 1932, limited to six months' duration and which has since been extended and is in effect today.

I have related in detail the various conferences formed by the intercoastal lines to voluntarily regulate themselves principally to point out that governmental regulation is desirable both from the standpoint of the carriers and public, and because of the stabilizing influence as well as, to a large degree at least, eliminate serious discrimination. In the past and to a considerable extent at present, different shippers with different means of pressure and influence, are able to obtain rates which vary accordingly.

Let me emphasize, however, I sponsor only just regulation, which does not unnecessarily "ham-string" the carriers' proper activities or blight their initiative.

IN this article one of America's outstanding railroad executives has been invited to present his views because it is felt that a free and frank discussion is necessary if we are to solve satisfactorily the problem of adjusting the relations between water and rail transportation, to the end that both agencies in their proper spheres may serve the needs of the nation in the most efficient manner. No true development of either means of transportation is possible unless it is economically sound and is conducted on a basis fair to all concerned.

Editor's Note

The lack, however, of governmental control of water lines, in its effect on railroad traffic and revenues, is exceedingly injurious and confusing. Abnormally low vessel rates between intercoastal points cause rail traffic originating far inland, and normally moving all-rail, to be diverted to a seaport, often diametrically away from final destination, in order that part of the transportation may be effected by water. The shipper may thus temporarily get a lower rate, but badly needed revenues are taken from the rail lines, while the freight is subject to needless rehandling and delay, and moved by a circuitous instead of direct route, all of which is a waste of transportation and uneconomic.

If only for the protection of the shipping interests, the unsoundness of the situation urgently requires, as a first remedial step, the placing of port-to-port intercoastal shipping—and lake and coastal as well—under federal regulative control, including provisions requiring the filing of tariffs and strict adherence to them.

Coastwise Rates Are Low

With reference to coastal, as opposed to intercoastal shipping, it is only fair to say that a reasonable degree of stability is being maintained in the rate schedules. The rates themselves, however, are abnormally low, due to the fact that a large proportion of the vessels in this trade, as in the intercoastal, are shipping board boats, purchased from the government at far less than their cost of construction.

In other words, this form of transportation, much of which is in severe competition with the railroads, is not required to bear anything like its full capital charges.

When we turn to the artificial inland waterways which the federal government has lavished upon the country, we find a situation in some ways even more disconcerting. Most people agree that it is unsound for a government to enter business in competition with its own citizens. In the case of the inland waterways, the federal government has gone much further. It has subsidized transportation upon them by operating barge line service at less than cost. It also compels the railroads to make through rates with these barge lines, thus short-hauling themselves and cutting their revenues.

To cap the climax, it bars the railroads from using the waterways, though any other interest or enterprise in the country may do so. In my opinion, if any preference at all is to prevail, it would seem logical that the railroads, pioneers and experts in the transportation field, should have first choice in the operation of water services.

The federal barge lines are operated by the Inland Waterways Corp., of which the federal government owns all the stock. They provide service on the Mississippi and Warrior rivers. Management is in the hands of the secretary of war who, by the Denison act, is directed to sell the lines to private interests if possible, with the utterly unsound restriction, however, that no railroad may directly or indirectly participate in their ownership.

Competent studies have been made of the expense of rendering transportation service on the inland waterways as compared with the rates charged by the competing railroads. Two conclusions stand out:

The first is that the true cost per ton mile on the waterways, including interest on capital, materially exceeds the rail rates. The second is that the average length of haul from point to point on the water lines is 50 per cent greater than on the competing rail lines, which correspondingly increases the unfavorable showing of the waterway costs.

However, the shipper by government barge is accorded the advantage of rates considerably lower than by rail. This is because rates have been placed only high enough to approximate the bare expenses of operation without any allowance for interest on investment, and of course without any taxes, not to mention the enormous initial expenses of the construction of the inland waterways and their maintenance which ultimately must be borne by taxpayers throughout the entire nation whereas only a comparatively small number of citizens, because of their location, can hope to secure any direct return from the waterways. Even on this basis, losses have been the rule. Compare the situation of the railroads, which must finance the construction and maintenance of their trackage and rights-of-way with their own capital.

Relation of Rates to Cost

Qualified authorities estimate that the rates paid by shippers average less than half the actual cost of barge line service, including interest and investment. The remainder, constituting what are called the "hidden costs," are of course paid by the taxpayers. Among the most important of these are the railroads, which thus are forced to feed a subsidy in competition with themselves.

The subsidy, it is important to observe, goes to the shipper who is able to use the barge line, and is, therefore, given a discriminatory advantage in transportation charges over other shippers not so situated. In a word, the federal government, by establishing this discrimination, is doing exactly what the railroads are most properly and rigorously forbidden to do.

The taxpayers foot the bill, regardless of whether or not they derive any direct benefits or utilize the services of the waterways which, as previously indicated, is not possible in the case of the majority of taxpayers of the nation. The railroads lose the traffic, and in addition are forbidden to try their hands at making navigation on these inland waterways a self-supporting industry. Logically, the most promising possibilities for operating the barge lines on an economic and efficient basis would undoubtedly lie in encouraging the railroads, pioneers and experts in the transportation field, to make the attempt in co-ordination with their existing facilities. But congress has decreed otherwise.

Expenditures on Waterways

It would seem, in view of the condition of our national treasury, the general burden of taxation and the abundant transportation facilities already at the nation's command, that further expenditures upon the extension of the inland waterways system should proceed only in accord with actual needs, and where it can be shown beyond peradventure that they can pay their own way.

I further submit that all common carrier service on these waterways should be subject to regulative control, that the government should discontinue subsidizing transportation by the barge lines at the taxpayers' expense, and that the railroads should be allowed access to the waterways under the same conditions as apply to all other interests.

To this it should be added that a sound governmental transportation policy would require restoration to the railroads of their former right to participate in the ownership and operation of vessel lines on the Great Lakes and in the coastal and intercoastal trade and in so doing enable them to proceed with the plan of coordinating all modes of services to the advantage of the public; likewise put such operations on a paying basis and relieve the taxpayers not directly benefited of continuing to pay "tribute" for the benefit of a few.

We are already sharing in ocean shipping to foreign ports, where the restrictions of the Panama canal act do not apply.

The advantages of co-ordinated transport, with its elimination of unnecessary and wasteful competition and duplication, its continuity of service under sound management, are so great that I hope the public cannot fail to appreciate and insist upon their adoption. Laws and unsound regulatory practices which stand in the way must ultimately yield to this sensible solution and afford relief to the taxpayers the nation over.

Bids for Mail Contracts To be Opened Feb. 20

On Feb. 20, the postoffice department will open bids for two ocean mail contracts which in the aggregate during a ten year period may require the expenditure of $23,300,000 on new ship construction.

One of these routes is for a service from New Orleans to the British Isles, Galveston to the Mediterranean, Adriatic and Black sea ports and Galveston to Honolulu, Shanghai and other Pacific and transpacific ports; also Houston to Northern Europe.

The other route provides service from Baltimore, Philadelphia, Boston, Portland or New York to the British Isles.

It is estimated that on the first of these routes, a total of $20,000,000 will have to be expended for the building of new ships and the reconstruction of existing ships. In the second route the expenditure for new ship construction is estimated at $3,300,000.

So far mail on these routes has been carried by the shipping board. The contracts now in line would go to private operators.

John Lorne Denny Dies

John Lorne Denny, surveyor to Lloyd's Register of Shipping and for the past five years assistant editor of the *American Yacht Register* of Lloyd's Register of Shipping, New York, died on Dec. 24.

Mr. Denny was born in Dumbarton, Scotland, and received his education at the Dumbarton academy and his shipbuilding training in the local shipyard of Archibald, McMillian & Son Ltd. He came to the United States in 1901 and worked in several of the leading shipyards. He was appointed surveyor to Lloyds during the war. He is survived by his wife and a daughter.

A Century of Service

The Cooper Bessemer Corp., Mt. Vernon, O., builder of diesel engines for marine service, is celebrating the one hundredth anniversary of its foundation. The beginnings of the company go back to the time when the two brothers, Charles and Elias Cooper, built a small iron foundry at Mt. Vernon in 1833. The business has now grown to a valuation of $8,000,000.

At the beginning of the twentieth century, the Cooper company was widely known for its high powered steam engines. At that time the gas engine began to come into notice, and the Bessemer Gas Engine Co., across the border in Pennsylvania, began making clutches for engines in the oil field, and this company grew along similar lines. In 1908 the Cooper company designed and built a single gas engine of 1000 horsepower, which was considered an exceptional performance at the time. The two companies prospered through the following decades and in 1923 the Bessemer company, capitalized at $3,000,000, had grown to such size that it occupied 29 separate buildings. In 1925 the Cooper company obtained manufacturing licenses for the German M A N diesel engine. In 1929 the Cooper company purchased the Bessemer company and the present corporation was organized.

During the last ten years this company has built the largest diesel engines in the country for powering private yachts, including two 1500-horsepower diesel engines for H. E. Manville's yacht HI-ESMARO. A large number of diesel engines have also been built for commercial craft of different types, one of the latest installations being in the diesel electric tug DEARBORN for the Ford Motor Co.

Heads United Fruit Co.

Francis Russell Hart has been elected to succeed V. M. Cutter as president of the United Fruit Co. He is familiar with the business of the company as he has been a director and member of the executive committee since 1901. He also spent some years in the tropical countries in which the company operates.

Mr. Hart is a New Englander, born in New Bedford, Mass., a graduate of the Massachusetts Institute of Technology, and now lives in Boston. He also has in his spare moments written a number of books including the *Admirals of the Caribbean.* He is a member of many societies.

V. M. Cutter, who resigned as president, was elected chairman of the board.

Francis Russell Hart
Elected President, United Fruit Co.

L'Atlantique Burns at Sea Salvaged by French

The L'ATLANTIQUE, magnificent French liner, for the French-South American service and only a year in operation, was nearly destroyed by fire on Jan. 4 in the British channel.

She was enroute from Bordeaux to Havre for reconditioning preparatory to re-entering service. No passengers were on board. Of the crew of 200 men, 19 are unaccounted for.

The fire started from an unknown cause in the second class cabin section and rapidly gained such headway that in a comparatively short time the vessel was ablaze almost from stem to stern. The wireless operator was able to send only one S. O. S. call before his quarters were swept by flames. The crew fought the fire for several hours before the order was given to abandon ship at about daybreak, the fire having started at 3:30 in the morning. The survivors including Captain Rene Schoofs were brought ashore at Cherbourg and Brest by the vessels ACHILLES RUHR, FORD CASTLE and SIERRA VENTANA. Captain Schoofs, the last to leave the ship, jumped overboard following seven or eight of his crew who had remained with him.

The burning hull did not sink but drifted for 35 hours until taken in tow by French tugs off the coast of England, 65 miles from the position she was in off the island of Guernsey when the fire broke out. Considerable rivalry had developed between Dutch, German and French tugs for towing the prize in, the French finally winning.

The L'ATLANTIQUE, a steam turbine driven vessel of 42,512 gross tons was built in St. Nazaire and entered the South American service in September, 1931. She was the second largest vessel in the French merchant marine and the twelfth largest ship afloat, and had accommodations for 1234 passengers. She was an exceptionally luxurious vessel.

It is quite apparent that the hull construction and subdivision served to save her from complete disaster, but what baffles shipping men is how a modern ship with every means for fire detecting and fire fighting could be so completely at the mercy of a fire. This disaster, following as it does, a number of other serious fires including the loss of the French liner GEORGES PHILIPPAR, which burned and sank in the Gulf of Aden last May with the loss of 50 lives, will be most thoroughly investigated. There is considerable opinion that sabotage might be the cause on account of the similarity between the L'ATLANTIQUE and the GEORGES PHILIPPAR disasters. Faulty electrical installation has also been suggested as the cause. The report of the commission inquiring into the destruction of the GEORGES PHILIPPAR has not been made public.

European Shipping is Still Hopeful

Reasonable Improvement is Expected

By Frank C. Bowen

IT IS doubtful whether there is anybody connected with shipping or shipbuilding in Europe who is not glad to see the end of 1932, with at least a reasonable hope of an improvement in the future, although it is realized that this improvement cannot be rapid.

As regards new construction, there is little enough to say but the quarter has seen the launching of one and the completion of two epoch making vessels, the NORMANDIE of the Compagnie Generale Transatlantique, and the REX and CONTE DI SAVOIA under the flag of the Italian line. Unfortunately the status of the new giant Cunarder, No. 534 is still unchanged and in spite of innumerable rumors no one knows when work will be resumed. So the Latin flags have it all their own way for a year or two at least, for these three ships are of such outstanding character that they are bound to obtain the support of the highest-priced passenger. Whether the first two Italian record breakers will result in the flow of American holiday makers to South Europe instead of North as hitherto, a change which was one of the reasons for the help given by the Italian government, or whether the NORMANDIE will be completed in time to maintain the old tradition, still remains to be seen.

Government Aid Is Given

All three ships were laid down with the active help, direct and indirect, of the respective governments. This fact is drawing increased attention to the subsidy question in British shipping circles. On principle the British shipowner is for free trade and freedom from any artificial aid or restriction, but with practically every other country in the world giving assistance to its merchant service there is a growing feeling that something will have to be done, undesirable as it is. But when it comes to matters of detail there is no agreement in the industry; some are in favor of a cash subsidy, some of a building and scrapping bounty and others of the reservation of inter-imperial trade against all countries which discriminate against the British. All these schemes possess patent objections and whether anything will be done in the matter is an open question.

The position of the Compagnie Generale Transatlantique with regard to its state aid is an object lesson which many shipowners have taken to heart, for a country never gives help without insisting on its full pound of flesh in the matter of services or interference. The French government has come to the assistance of the company, whose losses are mostly attributable to sidelines in the development of the Northern African departments as tourist resorts, but it is only at a stiff price in interference on every point. It is generally believed, also, that the unfortunate accidents on the maiden voyages of the Italian liners REX and CONTE DI SAVOIA, accidents which were greatly exaggerated in the reporting, were due to the same cause, the Italian authorities insisting on maximum despatch in scheduling the maiden voyages whereas the experienced shipping men who have built up the fortunes of the Navigazione Generale Italiana and Lloyd Sabaudo might have postponed them, had no pressure been brought to bear, to a later date and giving more time to fitting out and tuning up.

It is the Italian government which has taken the subsidy scheme further than anybody else at the moment and has introduced navigation bounties for tramps and other ships which do not benefit by the mail agreements, very much on the same lines as the French navigation bounties which lasted from 1881 to 1918. The Italians claim that this measure is only a temporary one while they are handicapped by exchanges and other considerations, and the law has to be renewed year by year.

This Italian navigation bounty to tramp shipping has made the tramp situation still worse, a thing which appeared impossible twelve months ago. The British tramp fleets are particularly hard hit, for the more expensive cargoes are being carried by liners and with the poorer ones the Mediterranean tramps, helped by a subsidy, have great attractions More British tramps are being laid up, although they are balanced by the recommissioning of a number of cargo liners and steady scrapping, but it is to be feared that matters will not improve until it is possible to get better co-operation betweer the owners and the elimination of unprofitable voyages. An additional handicap during the year has been the level of the pound in paying port dues, canal rates, etc.

There has not yet been time to see whether the Ottawa agreement will have any beneficial effect on British shipping, although there is no doubt that it will help imperial trade in spite of the fact that most of the "fat" will go to the dominions. As regards shipping, opinion is generally optimistic that the industry will benefit in time, although it is not at all unanimous.

The large volume of chartering during the year by the Soviet government for the carriage of various commodities, particularly timber, gave some relief to the tramp section, although the price obtained was very low and the business is still producing crops of cases before the courts, every legal quibble being patiently heard. In the meantime the Russian government has officially complained about the foreign ships that it chartered for timber last year. One complaint is that the majority of them were too old and slow for the business, but that is merely a matter of paying current rates. The further complaint that the majority of the ships chartered were unsuitable for the transport of timber is merely a reflection on their own chartering officials.

Modernization to the Fore

The fierce competition between tramps and cargo liners is drawing more and more attention to the question of converting and modernizing ships. Ever since the war the tendency has been to increase the speed of cargo tonnage, but there are quite a number of ships, whose hulls are still sound and whose cost is still high on the books of their owners, seriously handicapped owing to their low speed. Whether it is worth modernizing these ships for higher speed is a matter of considerable discussion, but the Dutch in particular have done it successfully in several cases, not only altering the machinery but drawing out the bow lines for better speed and frequently adopting the Maier hull form.

With regard to this matter of speed, it is worth remembering that some years ago, when his crack ships were only 14 knotters, Wilhelm Wil-

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This is a quarterly review of the shipping situation abroad, appearing regularly in MARINE REVIEW. Similar articles will appear in the May, August and November issues.

Trend of Trade and Shipping in British Isles

	September	October	November	Eleven months ended Nov. 30, 1932	1931
Total entrances of cargo ships into British ports:					
Number of vessels	4,160	3,941	3,373	44,204	50,991
Tons	4,108,678	4,834,142	4,346,881	51,506,479	55,423,875
Tonnage from Atlantic coast of North America	1,056,786	967,166	748,401	9,082,977	10,434,811
	(20.5%)	(20%)	(16.9%)	(17.6%)	(18.8%)
Total clearances from British ports:					
Number of vessels	4,087	4,134	4,276	46,877	50,922
Tons	4,774,696	4,347,212	4,413,045	49,121,475	53,739,542
Tonnage going to Atlantic coast of North America.	906,186	648,184	620,743	7,430,629	8,639,848
	(19%)	(15%)	(14%)	(15.1%)	(16%)
Total value of goods:					
Exported	£29,130,417	£34,132,715	£35,153,593	£379,421,904	£415,585,295
Imported	£54,266,652	£60,828,064	£61,566,734	£642,574,772	£785,217,976
Exports of coal:					
Tons	2,823,906	3,256,172	3,391,156	35,810,180	39,122,250
Value	£ 2,338,082	£ 2,649,271	£ 2,830,534	£ 29,112,057	£ 31,720,810
Tonnage shipped for use of steamers	1,085,672	1,167,650	1,160,672	12,901,961	13,345,262

helmsen, the well known Oslo shipowner, gave it as his opinion that speed in cargo ships had been overdone since the war and that competition had forced owners into speeds that were not economical. Now it is significant that he has just placed an order with the Deutsche Werke for a motor cargo liner with a sea speed of 15½ knots.

Next to the tramp section of the British merchant service it is probable that the coasting section has been hardest hit, and efforts are now being made to put it on to its feet again. One part of this trade has been seriously invaded by the little Dutch motor coasters which are built and run extraordinarily cheaply, and which generally finish up a trip across the North sea to England with one or two charters along the English coast. Once again reservation is being discussed, but in the meantime a parliamentary committee has been formed to look after the interests of the coasting shipowners with Sir John Sandeman Allen as its head in the house of commons and Admiral of the Fleet Lord Beatty in the house of lords.

Unfortunately the shipowners have not had much help in the second-hand market, for record low prices were touched during the year for ships sold for further use. Several cases have attracted attention in which ships only two years old, and up to date in every particular, have depreciated by fifty per cent in value during that period. Scrapping prices also dropped to a record low level of under six shillings a ton, but towards the end of the year there has been a considerable improvement, with British, Italian and Japanese scrappers buying quite actively. It is significant that postwar ships are already being sold for breaking up in addition to those which are worn out or declassed.

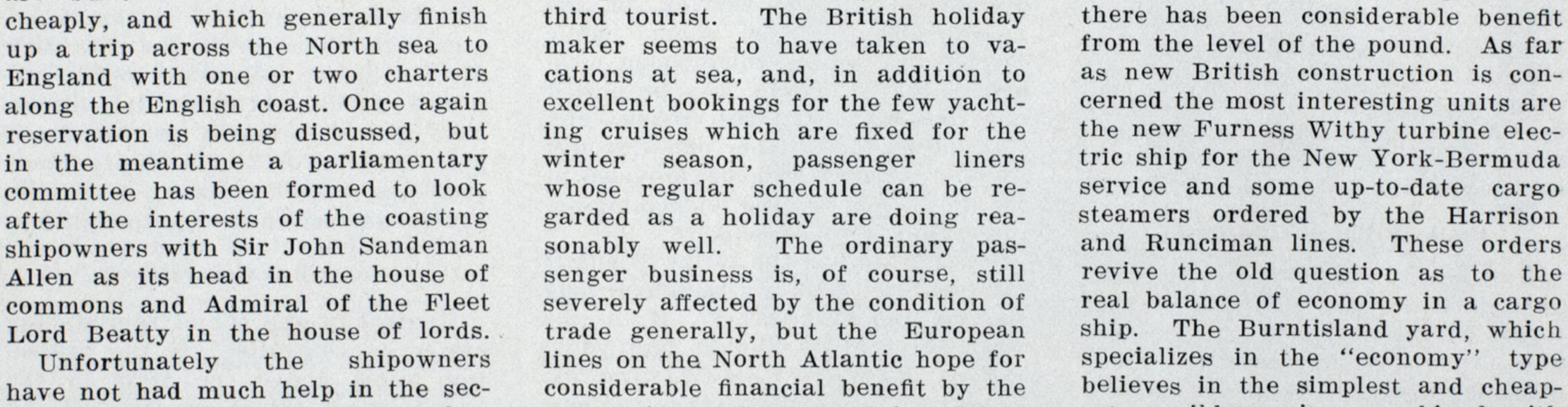
Cruises Prove Popular

On the passenger side the yachting cruises were the salvation of the business this year, and elaborate arrangements are being made for next year's program, particularly in the cheaper accommodation, cabin and third tourist. The British holiday maker seems to have taken to vacations at sea, and, in addition to excellent bookings for the few yachting cruises which are fixed for the winter season, passenger liners whose regular schedule can be regarded as a holiday are doing reasonably well. The ordinary passenger business is, of course, still severely affected by the condition of trade generally, but the European lines on the North Atlantic hope for considerable financial benefit by the restoration of fares to their old level which was agreed upon at the end of the season, the reduction hastily agreed upon at the beginning of the year not having had the least influence on the number of passengers carried.

As regards marine insurance the hull business has been bad with cut rates and heavy losses, particularly by fire. This subject is now engaging the attention of a special committee of investigation, more particularly as regards the port and shipyard risk for which low premiums are accepted. On the other hand the business of cargo insurance has been fair with tolerably good profits and a windfall to a number of underwriters in the salvage of the EGYPT's gold which had appreciated greatly in price while it lay at the bottom of the sea.

British shipbuilding has shown the worst construction figures since 1860, although on the repair side there has been considerable benefit from the level of the pound. As far as new British construction is concerned the most interesting units are the new Furness Withy turbine electric ship for the New York-Bermuda service and some up-to-date cargo steamers ordered by the Harrison and Runciman lines. These orders revive the old question as to the real balance of economy in a cargo ship. The Burntisland yard, which specializes in the "economy" type believes in the simplest and cheapest possible engines combined with a very carefully thought out hull, and they are able to turn out a good job at a reasonable price. On the other hand these Harrison and Runciman ships are to have all the

(*Continued on Page* 38)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AVERAGE OF 1920 RATES TAKEN AS 100

Diagram Showing Fluctuations of Ocean Freight Rates for Four Years and Eleven Months

Talking Picture and Address System

Installed on the Liner Manhattan

By Will Whitmore

THE S. S. MANHATTAN, newest and finest ship of the United States Lines when she sailed on her maiden voyage, had in operation the most complete talking picture, radio and music distribution system yet to be installed on any ocean liner.

Yet had you been on that maiden voyage, you would not have been aware of the presence of this elaborate system until it was put in actual operation. So skillfully and artistically has it been installed that every piece of equipment is concealed. Not a single loudspeaker is visible to detract from the harmonious appointments and decorations that make the ship one of the most beautiful afloat.

To visualize the extent of this installation and types of entertainment which it provides, imagine that you are one of the passengers. You stroll into the grand saloon on the promenade deck. There you find one of the latest talking pictures being exhibited in surroundings and with a quality of sound and picture projection on a par with the finest Broadway theaters. Simultaneously, another picture is entertaining the tourist passengers in the tourist lounge on deck B, for the ship contains two complete talking motion picture systems, each operating independently.

Radio Program Reception

If by chance the talkie does not hold your interest, you still have other forms of entertainment in store for you. Take a walk around the promenade deck to other public rooms such as the veranda cafe, the cabin smoking lounge or the palm court, and in any one of these rooms you will hear a radio program coming from your favorite radio station back home. It has been picked up by the radio receiver which is a part of the complete system, transferred to the radio distribution system, a part of the same system, and transmitted by wires to these rooms. Simultaneously the same program is being enjoyed by the tourist and third-class passengers in the tourist smoking lounge and third class lounge. If by chance the radio program ceases to be entertaining or music is desired for dancing, the radio program is switched off and the music reproducing system put in action. On this system the latest recordings may be played and transmitted throughout the ship to the various public rooms.

Already you have been offered three types of entertainment in the ten public rooms on the ship. But this is not all. Perhaps for the evening entertainment a musical program by the passengers had been arranged to be held in the grand saloon. The motion picture screen and horn are elevated from sight and the stage cleared for the artists. While you sit there comfortably enjoying the program, you can have the unselfish feeling that all other passengers on the boat may be enjoying the same program.

Washington Similarly Outfitted

A microphone outlet is provided on the stage and the microphone which has been plugged in is picking up the entire performance. The amplifying equipment boosts the microphone current and transmits it to each of the other public rooms so that everyone on this deck may enjoy the same program that you are hearing in the grand saloon. Three other public rooms have similar microphone pickups so that programs may be picked up from each of these rooms and transmitted to the other public rooms. Another such microphone, provided in the radio room, is used for making announcements to passengers.

Such, then are the forms of entertainment that you as a passenger may find on the MANHATTAN. If, in the near future, you should find yourself on board the S. S. WASHINGTON, sister ship of the MANHATTAN and now under construction, you will enjoy the same forms of entertainment. Electricians and sound experts are already busy wiring and installing on this vessel an even more elaborate system which will include all the features of entertainment now offered by the MANHATTAN.

Engineering of the installation was started at an early date in order that correct placement and suitable housings could be arranged for the loudspeakers, and that satisfactory sound distribution could be provided in the various rooms. Early agreement was reached with the suppliers of the system as to the interwiring of the rooms, dimensions of loudspeaker housings and local volume controls, location of equipment and centralization of controls. Under this coordinated arrangement, installation was started and operating economy assured, long before the design of the circuits and the manufacture of the equipment was placed.

Contrary to the more usual practice of using only direct current power aboard ship, in this case the sound reproducing system operates from an alternating current power supply, which is obtained from a motor generator set and regulator installed in the engine room and operated from the 440-volt direct current power system. Speed regulation of the projection motors and record turntables is thereby simplified. High temperatures in the control rooms, which would have been occasioned by the use of resistances for obtaining different potentials with a direct current system, are avoided, as is also the installation of several small motor generator sets. Furthermore, since manufacturers offer alternating current equipment almost exclusively as the basis of standard equipment, this was chosen as the most economical arrangement. The system operates without batteries, the necessary direct current potentials being obtained from rectifiers and filters, with the exception of the low-drain field supply for the dynamic loudspeakers, which is taken from the 110-volt direct current ship lighting.

Control is Centralized

Control of the sound reproducing system is centralized in the projection room above the altar in the grand saloon. Here are located the radio receiver, the music reproducer, two theatrical type talking picture projectors, the announcing microphone and the monitor horn, as well as an imposing array of amplifiers, switching panels, rectifiers, and other equipment. Despite the many items of equipment in this small room, it provides a particularly convenient and workable arrangement. Entrance is gained from the boat deck instead of through the public rooms, the delivery of film and movements of the operator, therefore, being possible without disturbance to passengers.

Maximum economy has been obtained in the use of amplifiers and associated equipment. Duplication has been avoided, yet either of the talking picture systems can be operated independently while the sound

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This article was prepared at the request of the editor. The author is connected with the Electrical Research Products Inc.

distribution system is furnishing entertainment to other rooms. The system in the projection booth of the tourist lounge is used only when a show is presented to the tourist class passengers. At such a time, the loudspeakers behind the screen in the lounge are disconnected from the central system and associated with the local amplifier by the operation of a key switch. This also serves to disconnect the volume control located in the lounge and to substitute the fader (volume control) located within the booth at the projectors.

The booth is fire and sound proof, being completely equipped with fire (drop) shutters, steel film storage cabinets, and rear-type (safety) projection shutters. Upon completion of a show and reconnection of the loudspeakers to the central control room, the equipment can be shut down, the booth locked and the screen covered with a decorative drape.

Large Picture is Shown

The ample size of the grand saloon and the existence of a spacious stage permit a large picture to be shown, and a theatre type horn to be used as a sound projector. When the stage is to be used for concert purposes, the talking picture equipment can be elevated out of sight, or, if sound reproduction only is desired, can, as was the case in the tourist lounge, be concealed from view by drapes. When the latter type program is furnished from the central control point, a local volume control in the saloon is brought into use. Regardless of whether this program or one of talking pictures is presented, the same amplifiers are used.

The design of the sound distributing system is such that there are three channels of final amplification and output of the sound. The first of these serves the grand saloon as explained, the second serves the other four cabin class rooms, and the third serves the five tourist and third class rooms, each channel having its own horn distributing panel to permit proper matching of impedances and apportionment of power. Two output amplifiers are provided in each channel, but one of these can be used by itself temporarily in case the other should fail. A volume indicator and a monitor horn, which can be connected to any one of the channels by merely throwing a key switch, give the operator a visual and an audible indication, respectively, of the condition of the program.

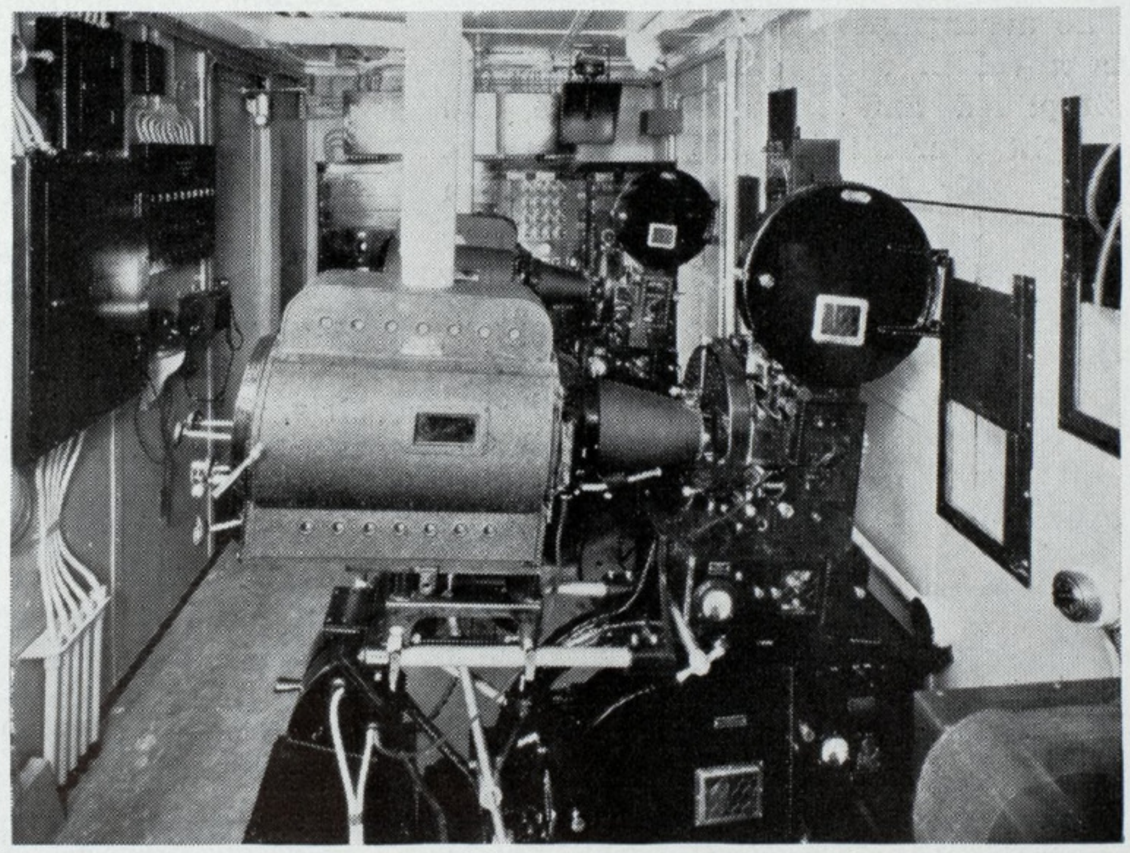
The input to the central amplifying system is obtained from a two-channel mixing panel. This arrangement, plus the switching facilities provided, permits the operator to make an announcement without interrupting the program which is in progress from the music reproducing system or from the radio receiver. The master control of volume is centralized at the mixer panel, and the gain controls at the various amplifiers are so set that a nearly constant output level is obtained, regardless of the source of program.

The projection booth, which is the central control room, appears at first glance to be a maze of intricate equipment. Not a foot of space is wasted; use is made even of the ceiling. The four-bay rack of amplifiers and controls is located at one end of the room where it will not interfere with the operator's movements during the running of shows. At the other end the rewind table, film vault, non-synchronous reproducer set, power rectifier and storage cabinets are located in convenient relation to the projectors which are in the center of the room. On the rear wall are the power switching and fuse panels, telephone, clock, and charts, as well as the control panel for the loudspeaker field circuits, which can be switched only at this point.

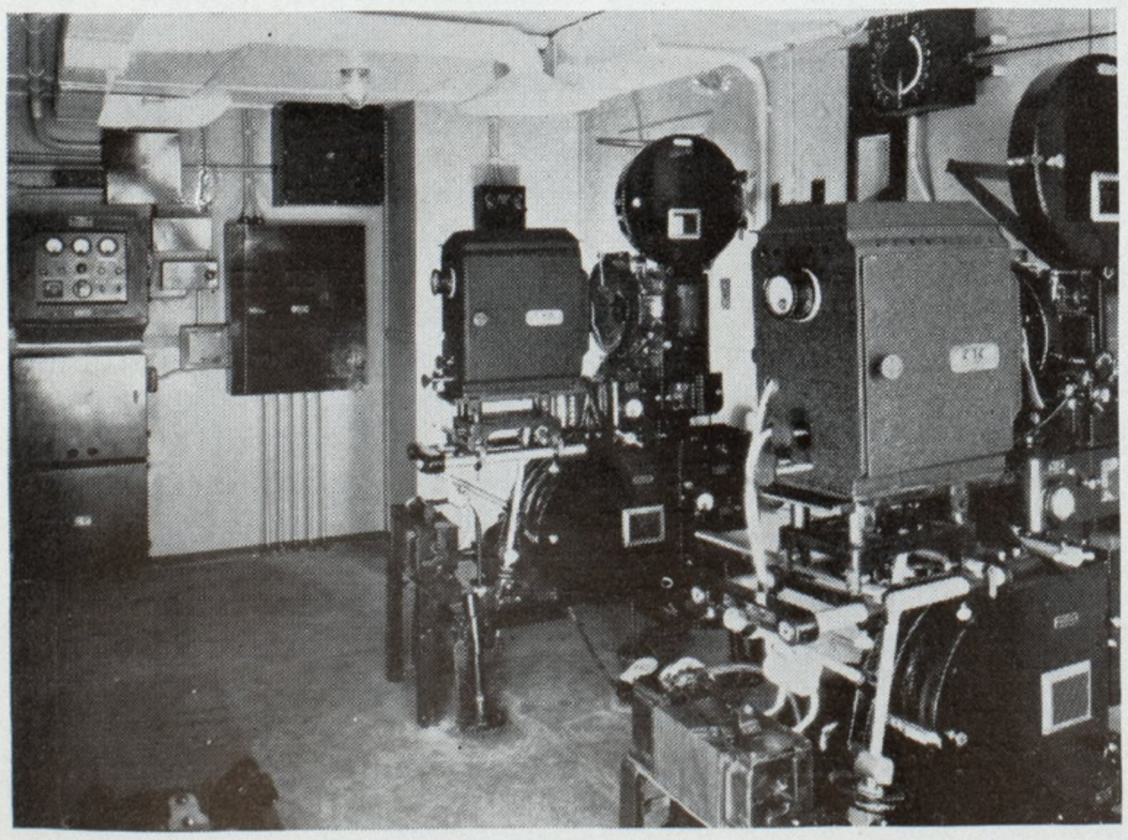
The use of a concealed volume control in each room is a new arrangement to prevent its operation by unauthorized persons. The room steward bears the responsibility of adjusting the volume as passengers may request, but due to the manner in which the circuit is adjusted at the control room he is limited as to the volume he can obtain. With the different loudspeakers in each room connected in parallel and operating from a single control, the failure of one unit will not seriously affect the others.

The quality of reproduction in the public rooms is impressive for its realism, the effect being aided by the favorable accoustic conditions. When announcements are made, they seem to emanate from nowhere in particular in a clear natural tone that causes the listener instinctively to look for the speaker. Radio programs are reproduced with noticeable fidelity even from distant stations.

During recent trips of the MANHATTAN, continuous use has been made of the program distribution and talking picture systems, and marked interest has been shown in them. Passengers have had little hesitancy in requesting the particular type of program they happen to prefer, and particular enthusiasm has been shown for the talking picture shows. In fact, due to heavy bookings and the desire of all passengers to view the pictures, duplicate showings have frequently been necessary.



S. S. Manhattan—Grand Saloon Projection Room looking to port side, showing Grand Saloon projectors, also central controls of Sound Distributing System



S. S. Manhattan — Tourist Projection Room showing projectors and local sound reproducing controls

Electrical Developments in Marine Applications

By H. C. Coleman

ALTHOUGH shipbuilding activity during 1932 was somewhat reduced, a number of important marine electrical applications were made and put in service during this year.

In connection with diesel electric propulsion, the most important installation was that on the Ford Motor Co. tug DEARBORN. This tug is used at the River Rouge plant of the Ford company in handling the large Ford fleet of ships. The propulsion plant consists of two Cooper-Bessemer diesel engines, each driving a 205 kilowatt, 250-volt, 475 revolutions per minute main generator and a 17 kilowatt, 125-volt exciter; a 500 horsepower, 125/140 revolution per minute double armature propelling motor and the necessary switchboard and control equipment.

The control scheme is the usual variable voltage system and pilot house and engine room stations are provided. The arrangement of the main control is novel in that it has been greatly simplified and reduced in size and weight over all previous installations. This has been accomplished even though the control is designed to provide additional functions over the usual system. The most important of these is the arrangement whereby a main generator may be disconnected or connected into the propulsion circuit while the other machine is in operation.

Power Limit Devices Fitted

The inter locks are arranged so that this can be done without danger of damage to the machines or the control. The control also includes power limit devices for protection of the engines and automatic transfer of excitation bus from one exciter to the other in the case of failure of voltage. The compact arrangement of this new control board and the dead front are of distinct advantage.

Another diesel electric boat which went into service in 1932 was the United States public health tug WALTER J. WYMAN, which is used in quarantine service in New York harbor. This tug is equipped with two Fairbanks-Morse diesel engines driving 205-kilowatt generators with the necessary exciters, supplying power to a 500 horsepower double unit propelling motor. The variable voltage control system is used and both pilot house and engine room stations are included.

The last of the fleet of ten sister coast guard cutters fitted with Westinghouse turbine electric propulsion was placed in service early this year. The vessel is propelled by a 3220 shaft horsepower synchronous motor receiving power from a single main turbine generator set which also supplies power to most of the alternating current auxiliaries. This fleet of vessels constitutes the largest in the world fitted with turbine electric drive and operated by one owner. The total installed shaft horsepower is 31,100.

New Electric Dredging Plant

A new type of electric dredging plant was developed during this year and the first installation was made on the United States engineer department dredge DUNDEE. This is a 224-foot dredge propelled by two horizontal tandem compound condensing type steam engines. It is of the so-called dust pan type. The dredging plant consists of a main turbine generator unit comprising a turbine, gear 800 kilowatts, 250-volt, 720 revolution per minute main generator and a 250 kilowatt, 230/115-volt auxiliary generator. The generator supplies power to the 24 inch dredge pump which is driven by a 1000 horsepower 200/245 revolutions per minute direct current motor.

The most interesting feature of this installation is the control of the dredge pump and its generator. Special characteristics have been incorporated in the design of these two machines so that they will inherently adjust themselves to take constant current through the pump motor over a voltage range from normal to 25 per cent over voltage. This special characteristic is obtained by means of a combination of self-excited shunt, separately excited shunt and differential series fields.

The purpose of this arrangement is to provide for clearing the discharge line from the pump of obstructions or plugging. When the discharge line starts to plug the speed of the pump tends to rise and the generator characteristic allows the voltage to increase 25 per cent and with constant current maintained inherently this means a 25 per cent increase in power which is usually sufficient to clear the pipe line. The generator voltage will then return to normal with constant current maintained. This operation is similar to that obtained with steam engine drive. The use of this special characteristic in the generator and motor design makes it possible to use the steam turbine with its superior economy as a prime mover.

This dredge is also equipped with electric auxiliaries, the largest of which is the jet pump which is driven by a 200 horsepower 1750 revolutions per minute motor.

Similar installations are fitted on engineer department dredges GRAFTON and ST. GENEVIEVE except that the dredging plant is of somewhat greater capacity. These dredges are also self-propelled but are of the cutter type, each being provided with a 225 horsepower weather proof cutter motor mounted on the dredging ladder.

The Matson Navigation Co. liners MONTEREY and LURLINE, two fine vessels for service between West coast and Australia, were placed in service this year. These are sister ships of the MARIPOSA, which was completed in 1931. All three vessels are completely equipped with electric auxiliaries furnished by the Westinghouse company. These auxiliaries are supplied with power by four, 500 kilowatt direct current Westinghouse turbine generator sets.

Auxiliaries on Large Liners

The new United States lines' transatlantic liner MANHATTAN made her maiden voyage in August. She is equipped throughout with electric auxiliaries and carries four 500 kilowatts Westinghouse direct current turbine generator sets. Exclusive of stateroom fans, this vessel carries 252 electric motors with a total horsepower of about 3600, most of which were furnished by Westinghouse.

Equipment was completed this year for a new ventilation arrangement for the propelling motors on the United States battleships COLORADO and TENNESSEE. Motor driven propeller type blowers and a water cooled air coolers and duct work of special construction to fit the limited space available on top of the motors were designed and built. The installation will be made at the Puget Sound navy yard.

The author, H. C. Coleman, is marine engineer, Westinghouse Electric & Mfg. Co.

Praise Lighthouse Keepers

The keeper at Passage island lighthouse, James Gagnon and his assistants, Herbert R. Driver and Lawrence E. Lane, on Jan. 6 were sent letters of commendation by George R. Putnam, commissioner of lighthouses. Passage island is the most northerly United States lighthouse in Lake Superior, and it is on one of the most important traffic lanes.

The letters of commendation were sent to the keepers for heroic efforts in operating their fog signal for four days and three nights during a violent gale with the temperature several degrees below zero.

Exhaust Turbine Increases Speed

For Same Steam Consumption

By J. S. Milne*

THE POINT ANCHA was reconditioned by the Craig Shipbuilding Co., Long Beach, Calif., for the Gulf Pacific Mail Line, Ltd., operated by Swayne & Hoyt, Inc., San Francisco, for the purpose of providing a faster schedule on the Seattle, San Francisco, Los Angeles, Panama canal and Kingston (Jamaica) route in accordance with a mail contract which required accommodations for eight passengers and sufficient additional power to increase the speed to 13 knots.

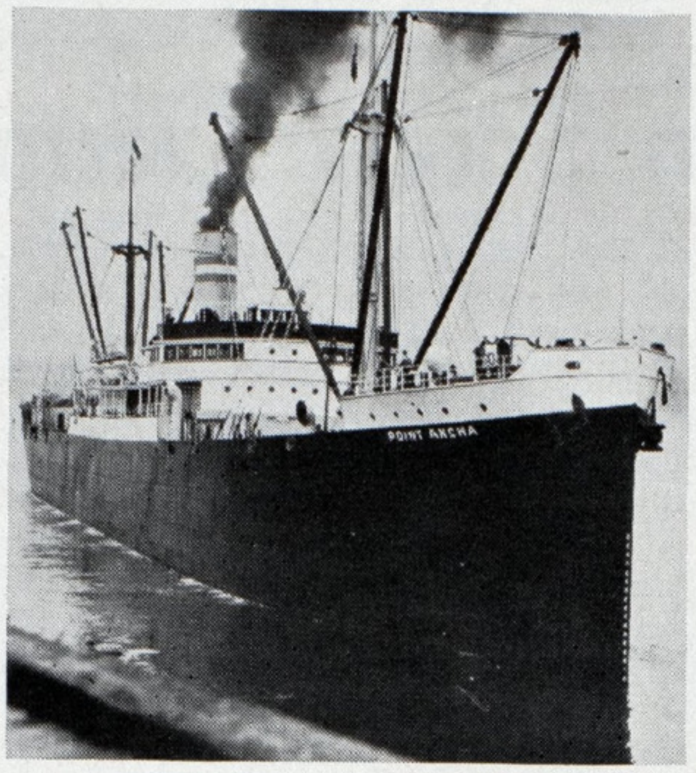
Originally, this ship had been designed for a maximum speed of 10½ to 10¾ knots, but was subsequently fitted with streamlined rudder and an improved propeller, giving a maximum speed of approximately 11½ knots. While lengthening of the hull by adding a 15 foot stern section was also originally considered, it was finally decided that an exhaust turbine in combination with the existing reciprocating engine would provide the additional speed required, which has proved to be the case. A DeLaval exhaust geared turbine of the Bauer-Wach system was installed.

Single Screw-Reciprocating Engine

The POINT ANCHA, as built in 1919, was a single screw vessel of 379.9 feet length, 53.1 feet beam, 26.9 feet depth and 4814 gross tons. The 24½ x 41½ x 72 inches by 48 inches stroke triple expansion engine developed 2600 indicated horsepower, to which the exhaust turbine is designed to add 1075 shaft horsepower without increasing the former steam consumption of the vessel, when receiving 40,000 pounds of exhaust steam per hour at 6.7 absolute pressure and exhausting to a vacuum of 28 inches. The new turbine and gear occupy the space formerly taken by the old thrust bearing, while the new condenser occupies approximately the same space as the old condenser. The only change required in the engine compartment was to enlarge the thrust recess approximately 10 feet outboard on the port side, and upward to the second deck.

The exhaust turbine operates at 3250 revolutions per minute. The turbine casing is mounted on the same foundation as the gear casing and is split horizontally, with the steam inlet and exhaust

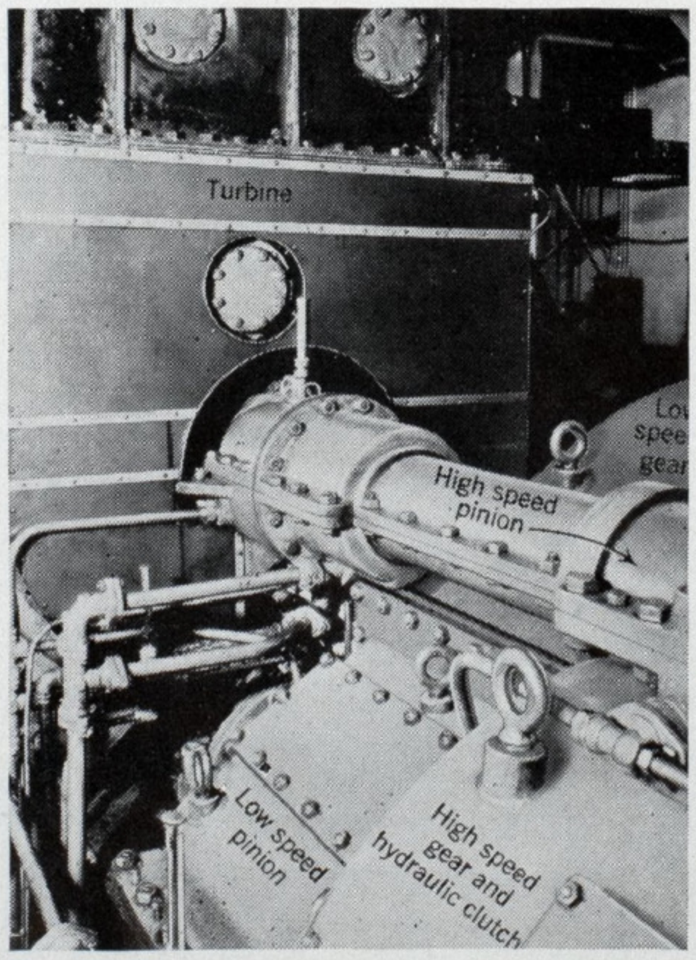
*The author, J. S. Milne, represents the American Bauer-Wach Corp.



S. S. Point Ancha—Reciprocating Engine Fitted with Exhaust Geared Turbine

connections in the top half. Any axial thrust of the turbine rotor is taken by a Kingsbury bearing on the forward end of the turbine shaft. A steel sleeve on the shaft protects the latter against wear from the carbon gland packings.

The turbine receives exhaust steam from the reciprocating engine except when maneuvering or going astern, at which times the engine exhaust passes directly to the condenser, this connection being made automatically by a change valve on top of the turbine casing connected to the exhaust trunk from the turbine to the



Exhaust Geared Turbine Installation on the S. S. Point Ancha

condenser and operated automatically by an oil relay actuated by the reverse shaft of the reciprocating engine. The turbine is protected against overspeed by an emergency governor on the forward end of the rotor, which actuates the change valve just mentioned and also releases oil from the hydraulic coupling which is incorporated in the double speed reduction.

The gear reduction consists of two sets of single helical gears by which the turbine speed of 3250 revolutions per minute is reduced to the propeller shaft speed of 95 revolutions per minute. The first reduction consists of a pinion cut directly on the oil-tempered carbon steel pinion shaft and meshing with teeth cut in a seamless steel band mounted on the driving half of the hydraulic coupling. The utility of the hydraulic coupling, in addition to preventing the transmission of shocks from engine or propeller to turbine and high speed gear, is that it permits of disconnecting the turbine without stopping the engine, which cannot be done where the turbine is rigidly or mechanically connected to the main shaft.

Gear Case Welded Steel

The driven half of the hydraulic coupling is carried on the shaft of the low speed pinion, which meshes with the low speed gear. The teeth of the latter are cut in a seamless band shrunk on a rigid cast iron gear center mounted on a hollow shaft coupled to the main shaft which carries the thrust collar of the main Kingsbury thrust located at the forward end of the low speed gear casing, and which is of the same length as the old thrust block shaft. The gear case is of welded steel construction, ribbed and stiffened with a sole plate, and designed to be bolted to the tank top with 1¼-inch steel chocks, the tank top having been specially stiffened.

The new circulating pump, which takes the place of the former engine driven circulating pump, was also supplied by the De Laval Steam Turbine Co., and is of the vertical shaft propeller type. It is designed to deliver 6000 gallons per minute against 25 feet head and is driven at 1200 revolution per minute by a horizontal shaft De Laval turbine through a De Laval worm reduction gear, the turbine speed being

4500 revolutions per minute.

In the first trials, the vessel was run over the Los Angeles navy mile off San Pedro at an average speed of 14.02 knots, although the steam pressure was only 180 pounds per square inch, instead of the designed pressure of 210 pounds and the revolutions only 92 instead of 95 per minute.

During the voyage to Puget sound, final adjustments were made of the boilers and auxiliaries and a speed of 15.1 knots was shown in the sound, while on the southbound voyage, an average of 13.8 knots was maintained. The steadying effect of the turbine and gear was particularly noticeable at the beginning of the trip from Los Angeles to San Francisco, with a light ship against strong head wind and choppy sea. The propeller was frequently completely out of the water and yet the engine did not race. Because of the weather it was necessary to throttle down to 65 revolutions per minute, and even then the ship pitched so heavily that the compass on the bridge was thrown out of its gimbal bearings.

On her recent southbound voyage from Puget sound to cities in Colombia, Venezuela, the West Indies and Mexico, the POINT ANCHA carried a floating display of Pacific coast products, also a commission to promote trade and good will and to study Latin American markets.

Two New Twin Screw German Motorships

TO GREATLY improve its service between Germany and the West Indies and Central America, the Hamburg-American line will soon place in operation two splendid new twin screw motorships, the CARIBIA and the CORDILLERA. The first of these two vessels will make her maiden voyage in February; the second, after completion, is scheduled for a cruise to the Atlantic islands in the fall at the termination of which she also will enter the same service.

Great importance is attached by the company to the perfection of its services to and from the West Indies and Central America. In addition to the original Hamburg-New York route, these services have been given particular attention for many years. The initiation of such additional facilities, notwithstanding the difficulties world shipping is faced with at the present time, indicates confidence in the future and the determination to offer the best possible service to shippers and travelers.

Modern in Every Respect

Modern in every respect, the new vessels represent the very best in recent developments in naval architecture and technical skill. Their lines are particularly graceful and pleasing to the eye and give an impression of speed. The superstructure is spacious and lofty, but in excellent proportions. There are two slender masts and one low large funnel, all adding to the general effect of balance and good design.

The vessels are 528 feet in length, 67 feet wide and 40 feet in depth, and have a displacement of 16,400 tons. Both are fitted with twin screws and are equipped with two 8-cylinder diesel engines of M. A. N. and Blohm & Voss type, developing 11,000 horsepower which is sufficient to give a speed of about 17 knots. The vessels have been under construction for more than two years, and it is expected when they do enter service that they will show the results of care in planning and in building.

Passenger accommodations in arrangement and decoration are especially suited for service in the tropics. The majority of cabins are outside rooms. Natural ventilation is supplemented by mechanical air admission devices. The vessels will carry three different classes. Pleasantly situated and comfortably appointed single or double berth cabins, all above the bulkhead deck, will accommodate 170 first class passengers. The public rooms include a spacious dining saloon which, on its longitudinal side is joined by covered verandas, so that part of the passengers may have their meals served in the open air; a smoking room containing a bar, several cozy corners and attractively furnished throughout; a beautifully fitted drawing room with dance floor; soda fountain; a children's room with adjoining open air playground; and a tea pavilion with marble dance floor, flower decked niches and movable walls.

The dining room balcony, the drawing room and the tea pavilion are arranged in a row and can be readily combined to form one large room for social entertainment. There is a spacious sports deck and a large tiled swimming pool.

Fine Passenger Accommodations

In the second class, accommodations are fitted for about 103 passengers. The cabins are well ventilated, accessible to the light and are provided with comfortable berths, closets and washstands with running water. Unusually fine public rooms include a large dining saloon with dance floor, smoking room, a tastefully furnished ladies' lounge, sheltered promenade deck, two verandas and an open air dance floor. Second class passengers may also use the swimming pool at certain hours of the day.

In the third class, accommodations have been arranged for 110 passengers. Each cabin contains two, three or four berths, and is equipped with washstands with running water. The public rooms include a large dining room, a smoking room, and a lounge with dance floor. These three rooms are also connected so that they can be combined into one large room.

The ships are equipped with all of the facilities usual on all Hamburg-American line passenger ships, such as bathrooms, libraries, a lift, motion pictures, a band, florist and other shops, hair dresser salons, etc. Special attention is given to the service and quality of cuisine.

Artist's Drawing of Two New Hamburg-American Motorships, the Caribia and Cordillera, for Europe-Central America Service

World Shipbuilding Lower In Last Quarter, 1932

WITH only about three-quarters of a million gross tons of merchant vessels in the hands of the entire shipbuilding industry of the world, ship production continues its trend to lower levels than at any time for more than fifty years past, according to a statement recently issued by Lloyd's Register of Shipping, covering returns for the quarter ended Dec. 31, 1932.

As compared with the previous quarter, the production total shows a shrinkage of 135,000 gross tons, a decline of 15 per cent. The decline is most pronounced in the United States and Italy, both of which countries are building less than half the amount of tonnage they were at the end of last September. Compared with these decreases of more than fifty per cent, the decline for Great Britain and Ireland during the past quarter represented only about six per cent, and for France only about eight per cent, while Germany reported practically no decrease. On the other hand, Japan reported a gain of not far from fifty per cent, and Spain an increase of about the same proportions.

Last Two Quarters Compared

How principal groups of countries have compared in shipbuilding activity during the past two quarters is shown in the following table of gross tonnage:

	Dec. 31, 1932	Sept. 30, 1932
Great Britain & Ireland	225,497	238,433
United States	59,628	124,703
Other countries	480,595	537,931
World total	765,720	901,067

As compared with the situation a year ago. Great Britain and Ireland, which were then building 28.5 per cent of the world's output, are now constructing 29.4 per cent; while the proportion of the United States has dropped from 14.8 per cent to 7.8 per cent. For the other countries combined, the proportion has increased from 56.7 per cent to 62.8 per cent.

Merchant tonnage launched throughout the world during the quarter just ended represented more than two-and-one-half times the volume of replacements through new work begun The comparison between new work and launching during the last two quarters is shown in the following tables of gross tonnage:

New Work

	Dec. 31, 1932	Sept. 30, 1932
Great Britain & Ireland	7,290	10,837
Other countries	75,196	32,572
World total	82,486	43,409

Launchings

Great Britain & Ireland	38,979	47,884
Other countries	173,838	140,324
World total	212,817	188,208

Tanker Construction Decreased

Construction of steam and motor tankers of 1000 gross tons each, and upwards, decreased in all countries except Germany during the quarter just ended, although the decline represented only about ten per cent, amounting to 20,000 gross tons. Sweden still leads in the volume of tanker construction. The following table gives gross tonnage comparisons in tankers for the last two quarters:

	Dec. 31, 1932	Sept. 30, 1932
Sweden	54,000	60,200
Germany	49,600	49,600
Great Britain & Ireland	30,026	38,216
Other countries	60,864	67,224
World total	194,490	215,240

Motor tankers represented 177,730 gross tons of the total for the December quarter.

In contrast to the September quarter the volume of motor vessels under way during the December quarter was greater than that for all other types of vessels combined. As against a decline of only 17,000 tons in motorship construction under way, other types of vessels showed a decrease of 118,000 tons. At present, therefore, the world's shipyards are building about 20,000 gross tons more of motor vessels than of other types. At this time last year these types led motorship construction by more than 140,000 gross tons. The comparisons for the two last quarters follow:

	Dec. 31, 1932	Sept. 30, 1932
Motor vessels	392,749	410,044
Other types	372,971	491,023
World total	765,720	901,067

Motor vessels continue to cut little figure in the merchant ship construction of Great Britain and Ireland, representing only about nine per cent of the present building program of those countries. For the other maritime nations combined however, these types of vessels are nearly seventy per cent of the total output. In other than motorized ships, Great Britain and Ireland are building more tonnage than all other countries taken together, as shown in the following tonnage table for the last two quarters:

	Great Britain & Ireland	Other Countries
Motor vessels	20,611	372,138
Other types	204,886	168,085
Total	225,497	540,223

At this time last year, Great Britain and Ireland were building 89,855 gross tons of motor vessels, and the other countries taken together, 540,228 tons.

Germany continues to retain her lead over other nations in building motor vessels. Motorship building during the last two quarters is shown in the following gross tonnage table:

	Dec. 31, 1932	Sept. 30, 1932
Germany	77,740	79,000
Italy	57,598	77,952
Japan	60,745	37,996
Sweden	57,160	69,150
Holland	39,250	40,149
Great Britain & Ireland	20,611	24,984
United States	503	803

Figures, covering all types of marine engines being built or installed throughout the world during the quarter ended Dec. 31 last, show a slight increase in the power of oil engines, and decreases for reciprocating steam engines and steam turbines.

The returns for oil engines show that for all countries taken together, the total indicated horsepower at the end of December was 358,111, as against 355,018 at the end of September last. For steam reciprocating engines during the past quarter the total indicated horsepower for all countries dropped from 97,336 to 87,296.

Much the largest decline was shown in the world figures for steam turbines, the total shaft horsepower of these falling from 648,700 at the end of September to 479,440 at the end of December.

Relative Standing in Shipbuilding

A number of changes in the relative ranking of the various shipbuilding nations occurred during the quarter just ended. Great Britain and Ireland maintained their leadership; but almost every other country in the list shifted its position during the December quarter.

How the various countries have stood in tonnage under way during the last two quarters is shown in the following table, the figures representing gross tons:

	Dec. 31, 1932	Sept. 30, 1932
Great Britain & Ireland	225,497	238,433
France	101,675	109,285
Germany	80,310	80,770
Japan	63,345	46,441
United States	59,628	124,703
Italy	59,113	127,969
Sweden	58,530	73,480
Holland	39,450	40,349
Spain	33,412	21,412

Only four vessels, each of 20,000 gross tons or above, are now being built. Great Britain and Ireland still have two under way, as in the September quarter, and the United States and France, one each. Italy. however, has completed the one she was building. The four now under way compare with five in the quarter ending September 30, last, and nine in the quarter ending June 30 last.

Late Decisions in Maritime Law

Legal Tips for Shipowners and Officers

Specially Compiled for Marine Review
By Harry Bowne Skillman
Attorney at Law

THE master of a vessel cannot pour water into the hold of the vessel without coming under the duty to take reasonable measures to ascertain whether any of the cargo was damaged thereby. If it was, and due diligence would have disclosed this fact, this obligation to protect the sacrificed cargo's right to contribution is clear, it was held in the case of Dibrell Bros. v. Prince Line, Ltd., 58 F. (2d) 959. The court held further that clauses in bills of lading requiring notice of claims for damage before removal of goods from the ship do not extend to claims for general average contribution and are inapplicable to the vessel's or saved cargo's share of general average contribution.

* * *

ON REDELIVERY of lighters in damaged condition by the charterer, there arises a presumption of negligence on the part of the charterer which he must explain away in order to defeat libels by the owner.—HARRY R., 58 F. (2d) 1000

* * *

CHARTERER may waive the terms of a charter or a breach thereof. In the case of Clarke Steamship Co. v. Munson Steamship Co., 59 F. (2d) 423, it was held that any breach of a charter party by failure to paint a vessel before delivery to the charterer was waived by the parties' agreement to have the painting and cleaning done afterward by the crew and additional men hired by the owner; and, further, that the charterer was not bound to reject the vessel in order to claim damages, but might accept her and retain the right to recover damages. In the same case it was decided that the arrest of a vessel under private legal process was not within the "restraint of princes," etc., exception in the charter party.

* * *

SUIT in admiralty must be brought by the real party in interest and not in the name of one for the benefit of another, to whom the right has been transferred, and courts of admiralty do not look with favor upon assignments executed solely to confer jurisdiction. In view of the above it was declared in the case of Wittig v. Canada Steamship lines, 59 F. (2d) 428, that a shipper receiving insurance for cargo damage under an agreement reciting that payment was a "loan," for which the claim was pledged, continued the real party in interest, as regards recovery against the carrier; also, that an admiralty court could refuse jurisdiction of a libel for cargo damage, brought by a resident of the district, as assignee, where transactions involved took place in a foreign jurisdiction, shipper and carrier were foreign corporations, and witnesses would be in a foreign country.

* * *

IN CONNERS MARINE Co. v. McClintic-Marshall Co., 59 F. (2d) 758, the court decided that the owner of a tug and barge was entitled to recover damages arising from the charterer's improper hoisting of materials on vessels from car floats, but that such owner was not entitled to recover damages resulting from its representative's obedience to the charterer's orders respecting the shifting of anchors. The owner, not the charterer, of the tug and barge was held responsible for navigation thereof, though the charter party provided that the master should be under orders of the charterer.

* * *

WHEN a vessel has violated the tariff laws and thereby become subject to forfeiture, it can be seized anywhere, even upon the high seas; in such a case, it is the duty of the customs officers to seize and secure it as well without, as within, their respective districts.—Mary, 59 F. (2d) 771.

* * *

PRIVILEGE of limiting liability is granted the owner of an offending vessel on condition that he surrender the value of his interest in the vessel and her freight then pending. In the case of a flotilla consisting of tug and tow, the vessel required to be surrendered, according the case of In re W. E. Hedger Co., 59 F. (2d) 982, will, in some circumstances, be only the tug, while in other circumstances it will be the whole flotilla. The petitioner in a limitation proceeding has the burden of proving compliance with the conditions which enabled him to limit liability. He must show the value of his interest in the vessel and her pending freight. When a tug owner proves that he collected a certain sum as freight and that he had no interest in the cargo-carrying barges, the sum collected necessarily measures his interest in the freight earned by the tug, in absence of a showing that others are entitled to share in the freight he collected.

* * *

IN CONSIDERING the rights of destitute seamen, the courts judicially know that Alaska is not contiguous to the United States; that geographically it is foreign; and that by act of Jan. 3, 1923, seamen in Alaskan waters are placed on the same basis as seamen of the politically foreign countries, and appropriations made "for relief and protection of American seamen in the territory of Alaska." Where the customs office in Alaska, by its deputy collector, took full charge of a shipwrecked crew, and required the master of another ship belonging to the same owner to transport the seamen to the shipwrecked vessel's debarking port, agreeing to pay for transportation, the shipowner was not entitled to compensation out of the destitute seamen's fund, notwithstanding the certificate of the deputy collector, the primary object of the appropriation being for the relief of destitute seamen, and not for the benefit of the steamship company.—Alaska Steamship Co. V. United States, 60 F. (2d) 135.

* * *

VESSEL leaving a course which would have permitted a starboard to starboard passing with ample space between, and turning into the path of an on-coming vessel without getting an exchange of signals to indicate that the on-coming vessel knew the crossing was to be in front rather than astern of her, was negligent, as was also the on-coming vessel, proceeding at a rate of 8 or 9 knots without any lookout or any one in the pilot house except the captain, and which disregarded the signal. The captain was negligent in either not hearing the signal or in disregarding it, and an adequate lookout might have prevented that. Furthermore, he was negligent in not initiating an exchange if he did not hear the signal, and in proceeding without a change of speed or course into a position of danger without knowing what the other vessel's intention was. — KOOKABURRA, 60 F. (2d) 174.

Marine Business Statistics Condensed

Record of Traffic at Principal American Ports for Past Year

New York

(Exclusive of Domestic)

Month	—Entrances— No. ships	Net tonnage	—Clearances— No. ships	Net tonnage
December, 1932	244	1,307,322	253	1,387,341
November	227	1,154,961	232	1,175,988
October	253	1,379,283	244	1,328,561
September	258	1,634,448	266	1,658,521
August	287	1,754,583	270	1,636,803
July	238	1,483,476	254	1,553,215
June	267	1,579,970	277	1,650,915
May	277	1,484,116	259	1,392,451
April	270	1,506,696	277	1,515,147
March, 1932	332	1,982,670	375	2,070,546

Philadelphia

(Including Chester, Wilmington and the whole Philadelphia port district)
(Exclusive of Domestic)

Month	—Entrances— No. ships	Net tonnage	—Clearances— No. ships	Net tonnage
December, 1932	44	141,426	37	116,120
November	54	154,796	41	130,250
October	57	167,539	42	115,660
September	45	123,049	36	99,766
August	64	175,530	43	113,901
July	49	130,439	38	85,956
June	55	157,399	36	102,354
May	66	205,184	46	142,889
April	55	165,646	51	159,427
March, 1932	57	186,479	45	151,190

Boston

(Exclusive of Domestic)

Month	—Entrances— No. ships	Net tonnage	—Clearances— No. ships	Net tonnage
December, 1932	98	300,132	64	241,693
November	88	308,164	59	220,530
October	99	332,754	68	249,150
September	114	337,608	91	283,227
August	117	369,799	103	339,775
July	121	408,896	101	346,926
June	116	342,057	95	322,558
May	125	294,093	97	257,608
April	103	308,951	72	215,237
March, 1932	99	319,863	65	217,992

Portland, Me.

(Exclusive of Domestic)

Month	—Entrances— No. ships	Net tonnage	—Clearances— No. ships	Net tonnage
December, 1932	17	43,705	16	40,396
November	7	9,785	6	10,174
October	8	21,407	7	18,228
September	9	14,698	9	16,526
August	14	25,844	14	24,208
July	9	15,156	10	17,733
June	10	25,895	11	26,519
May	14	26,484	14	29,669
April	10	22,911	10	24,483
March, 1932	14	41,083	13	35,993

Providence

(Exclusive of Domestic)

Month	—Entrances— No. ships	Net tonnage	—Clearances— No. ships	Net tonnage
December, 1932	3	7,918	2	8,820
November	4	13,673	3	11,066
October	3	13,133	3	9,683
September	3	11,450	4	14,471
August	5	13,418	1	5,071
July	2	5,918	2	9,634
June	7	22,359	3	7,151
May	7	24,204	....	.....
April	4	17,438	3	13,515
March, 1932	8	35,293	5	24,289

Portland, Oreg.

(Exclusive of Domestic)

Month	—Entrances— No. ships	Net tonnage	—Clearances— No. ships	Net tonnage
November, 1932	19	78,628	41	157,544
October	25	98,792	45	182,167
September	25	98,370	37	146,945
August	22	93,256	32	127,572
July	21	84,961	24	99,035
June	20	80,272	25	98,356
May	20	82,750	25	99,862
April	23	83,171	28	104,796
March	26	103,924	36	142,050
February, 1932	32	127,810	36	149,417

Baltimore

(Exclusive of Domestic)

Month	—Entrances— No. ships	Net tonnage	—Clearances— No. ships	Net tonnage
December, 1932	75	238,598	68	224,544
November	80	254,047	83	262,796
October	98	281,907	94	281,554
September	66	190,459	80	241,287
August	88	243,077	87	245,091
July	88	255,354	86	255,209
June	95	299,502	97	294,264
May	95	289,042	102	317,751
April	108	346,276	114	377,317
March	96	288,052	105	319,511
February, 1932	105	337,487	98	323,603

Norfolk and Newport News

(Exclusive of Domestic)

Month	—Entrances— No. ships	Net tonnage	—Clearances— No. ships	Net tonnage
December, 1932	28	77,286	38	92,621
November	20	54,678	35	79,516
October	15	60,775	36	89,792
September	26	74,483	53	118,437
August	25	53,025	37	86,952
July	23	72,755	36	91,332
June	18	51,803	48	114,222
May	24	52,049	43	112,672
April	22	59,932	33	77,515
March, 1932	33	79,948	42	99,939

Jacksonville

(Exclusive of Domestic)

Month	—Entrances— No. ships	Net tonnage	—Clearances— No. ships	Net tonnage
December, 1932	10	24,067	10	24,595
November	10	24,352	2	1,799
October	8	16,714	8	13,659
September	7	15,879	7	12,539
August	8	14,142	9	16,647
July	8	20,558	7	16,963
June	7	12,746	10	20,277
May	12	33,157	8	20,489
April	9	17,886	9	21,812
March, 1932	8	15,560	13	26,457

Key West

(Exclusive of Domestic)

Month	—Entrances— No. ships	Net tonnage	—Clearances— No. ships	Net tonnage
December, 1932	38	59,058	39	58,604
November	37	64,384	37	61,961
October	35	62,394	35	62,394
September	36	60,309	36	61,405
August	37	66,432	37	66,313
July	38	62,503	40	62,486
June	37	61,115	39	76,274
May	56	76,236	55	76,070
April	55	77,443	50	80,778
March, 1932	41	61,078	39	59,069

Mobile

(Exclusive of Domestic)

Month	—Entrances— No. ships	Net tonnage	—Clearances— No. ships	Net tonnage
December, 1932	86	204,295	92	209,061
November	94	210,195	97	234,590
October	105	228,041	105	233,510
September	89	166,896	96	193,213
August	90	196,453	88	188,375
July	107	222,810	99	203,444
June	91	207,178	93	201,443
May	102	212,215	97	198,871
April	102	192,617	104	202,965
March, 1932	97	204,645	98	211,921

Seattle

(Exclusive of Domestic)

Month	—Entrances— No. ships	Net tonnage	—Clearances— No. ships	Net tonnage
December, 1932	45	202,731	47	207,521
November	43	193,530	45	200,513
October	53	235,224	58	251,334
September	40	168,740	40	175,635
August	39	183,141	36	167,807
July	32	145,560	36	162,923
June	36	160,585	32	143,574
May	43	184,393	41	170,652
April	40	171,346	43	191,352
March, 1932	43	190,082	43	180,862

New Orleans

(Exclusive of Domestic)

Month	—Entrances— No.	Net	—Clearances— No.	Net
December, 1932	151	434,935	157	450,545
November	146	442,427	156	457,621
October	140	403,062	150	424,621
October, 1932	140	403,062	150	424,621
September	151	423,791	139	415,704
August	160	448,826	156	442,655
July	166	438,496	171	448,198
June	170	597,552	164	457,960
May	182	517,523	169	472,154
April	192	558,631	194	559,824
March, 1932	200	604,269	196	589,805

Charleston

(Exclusive of Domestic)

Month	—Entrances— No. ships	Net tonnage	—Clearances— No. ships	Net tonnage
December, 1932	24	58,943	24	63,086
November	33	93,457	30	85,072
October	14	33,693	12	34,625
September	21	54,638	20	52,035
August	15	29,293	18	46,756
July	17	39,628	14	39,844
June	26	80,438	25	78,864
May	29	80,415	27	71,288
April	21	53,404	21	57,341
March, 1932	37	131,723	36	110,353

Galveston

(Exclusive of Domestic)

Month	—Entrances— No. ships	Net tonnage	—Clearances— No. ships	Net tonnage
December, 1932	24	39,491	103	311,999
November	29	64,016	102	314,452
October	26	54,231	94	277,977
September	25	38,083	85	236,532
August	29	44,389	71	202,598
July	27	50,302	79	220,489
June	28	47,046	81	226,542
May	38	84,468	86	259,026
April	44	97,609	106	297,282
March	32	61,079	109	319,013
February, 1932	27	64,866	101	317,095

Los Angeles

(Exclusive of Domestic)

Month	—Entrances— No. ships	Net tonnage	—Clearances— No. ships	Net tonnage
December, 1932	152	538,392	156	560,901
November	194	645,826	195	662,569
October	209	641,131	201	657,641
September	223	581,402	222	610,443
August	253	653,836	244	635,164
July	226	646,417	230	617,947
June	168	588,184	162	558,945
May	229	691,109	164	650,539
April	189	617,325	222	635,801
March, 1932	168	622,067	188	611,770

San Francisco

(Exclusive of Domestic)

Month	—Entrances— No. ships	Net tonnage	—Clearances— No. ships	Net tonnage
December, 1932	135	608,843	170	579,362
November	154	672,184	152	655,379
October	147	669,637	166	727,969
September	136	608,268	153	667,866
August	152	640,952	162	702,483
July	148	687,695	142	655,436
June	133	588,465	132	590,158
May	154	669,735	152	649,509
April	146	663,647	144	613,085
March, 1932	139	645,331	162	709,778

Houston

(Exclusive of Domestic)

Month	—Entrances— No. ships	Net tonnage	—Clearances— No. ships	Net tonnage
December, 1932	13	45,319	30	95,323
November	22	86,895	28	106,050
October	21	81,274	37	136,509
September	23	103,424	33	121,134
August	11	47,148	32	116,860
July	17	66,968	20	87,589
June	20	93,807	31	119,752
May	29	122,192	36	149,039
April	31	131,585	39	155,861
March, 1932	27	113,624	43	167,956

Note: The figures given in this table are for direct entrances and clearances. Additional vessels in foreign trade enter and clear from and to other American ports after original entry and before final departure. At the port of Philadelphia, for instance, additional vessels in the foreign trade in this category were 64 of 210,385 net tons entered and 56 of 184,678 net tons cleared for the month of December.

Latest Data on New Marine Work

Information on New Ships Ordered—Building and Repair Contracts Let—Shipping Board Loans Made, Authorized or Pending

IN THE January issue of MARINE REVIEW bids were published on the new 10,000-ton, 8-inch gun, cruiser for the navy. Bethlehem Shipbuilding Corp.'s bid of $8,196,000 was the lowest. This bid was $1,329,000 under the next lowest bidder. The contract has been awarded to the Bethlehem Shipbuilding Corp. The award was announced by the navy department on Dec. 20 last.

New Lighthouse Tender

Bids for building the new lighthouse tender, HEMLOCK, were published in the January issue of MARINE REVIEW. On Jan. 10 the lighthouse service accepted the proposal from the Berg Shipbuilding Co., Seattle, Wash., low bidder, for the construction of the new vessel at a price of $228,480. The contract calls for the completion of the tender within 285 days.

The HEMLOCK will be a twin screw vessel of all steel construction, 173 feet long, and with steam engines of 1000 horsepower. Watertube boilers of the straight tube type, designed for 200 pounds working pressure, will be installed. The engines are to be of vertical inverted, triple expansion type, with cylinder dimensions 12 x 19 x 32 inches and a stroke of 24 inches. Each engine will drive a four-bladed propeller, 7 feet 3 inches in diameter and 10 feet 9 inches in pitch. The starboard propeller will be right-handed and the port propeller left-handed. The new vessel will be used off the coast of Alaska, replacing the tender FERN, a smaller wooden vessel, built in 1915 and not adequate for service.

Scrapping Bids Received

In response to an invitation for proposals for dismantling and scrapping 40 obsolete vessels, the shipping board on Dec. 28 received the following bids:

Sun Ship Building & Dry Dock Co., Chester, Pa., $1.25 per gross ton of recoverable material for 10 vessels; Union Shipbuilding Co., Baltimore, Md., $1.06 per gross ton of recoverable metal for the entire 40 vessels; Messrs. N. Block & L. Chenman, Norfolk, Va., $1.47 per gross ton of recoverable metal for the 12 vessels located at Norfolk.

Under the proposal the successful bidder is required to completely dismantle and scrap the vessels, including the complete dismantling and scrapping of the hulls, engines, boilers, auxiliary machinery, and all other equipment whatsoever as they are rendered nonusable for other than scrap. At this writing no word is availabe as to the award of contracts to the various bidders.

Another New Ship Planned

It is understood that the Gulf Pacific Mail line which is operated by Swayne & Hoyt Ltd., San Francisco, is planning to place an order for a large freight and passenger steamship during 1933. The cost is estimated at $1,600,000. It is likely that the order will go to a Pacific coast yard in order to aid the unemployment situation. The new vessel is intended for service out of San Francisco.

Ask Bids for Derrick Boat

The United States engineer office, first Chicago district, 333 N. Michigan avenue, has requested bids to be opened Feb. 1, for the construction and delivery afloat in the Brandon road pool at Joliet, Ill., of one 15-ton steel hull, full revolving, steam operated derrick boat.

The notice stated that the contract will be awarded as a whole to the lowest responsible bidder.

Keel of the latest American destroyer to be named U. S. S. WORDEN was laid at the navy yard, Bremerton, Wash., on Dec. 29. At the completion of the cruiser ASTORIA, under construction at the same yard, work on the new destroyer will give continual employment to 310 men for nearly two years.

The United States Engineer office at San Francisco called for bids to be in late in January for dry docking, cleaning, painting and repairing the United States seagoing hopper dredge, SAN PEDRO.

Steel Barges Ordered

Near the middle of January, it was reported that the Barrett Line Inc., Cincinnati, had placed an order with the American Bridge Co., Pittsburgh, for the construction of six river barges, steel hulls, 196 feet long, 34 feet wide and 8 feet deep. These barges are to be used for operations on the Ohio and Mississippi rivers. Delivery will be made in May.

Miscellaneous Awards

Todd Dry Dock, Engineering & Repair Corp. New York received a contract for repairing the United States dredge HELL GATE on a bid of $19,655.

Jersey City Dry Docks Co., Jersey City, N. J., has received a contract for the repairs to the tug DELAND of the United States engineers, New York, at a price of $7744 with an allowance of 1½ cents per pound for condenser tubes.

The United States engineers at San Francisco asked for bids to be opened Jan. 25 for removing the sunken and abandoned steamer WINCHESTER lying in the north channel in Brooklyn basin. Oakland harbor, Calif. At the time of writing this, no further information is available.

Tenders Hickory, Wistaria

The two new lighthouse tenders, HICKORY and WISTARIA, are soon to be delivered by their builders to the lighthouse service. The HICKORY, under construction at the Bath Iron Works, Bath, Me., on Jan. 9 was 80 per cent completed and should be ready about the middle of February. The tender WISTARIA, building at the Staten Island, N. Y. plant of the United Dry Docks Inc., is due for delivery about Mar. 30.

United States Engineer

The United States Engineers at Pittsburgh received a bid of $7256 from Capt. Earl Webster, Pittsburgh, for two steel dump scows which had been offered for sale on Jan. 6. Other bids received were the Ohio Dredging Co., $3000; Vang Construction Co., $3000; Union Sand & Gravel Co., $1600; McCrady-Rodgers Co., $802; and the Ohio River Co., $427.

The United States dipper dredge OSWEGO was sold on Jan. 6 by the United States Engineers of Pittsburgh to the Monongahela & Ohio Dredging Co., Pittsburgh who had submitted the highest figure, $14,100.

The OSWEGO is a steel hull vessel with a 2½ yard bucket and was used in channel work on the Ohio river.

A Review of Shipbuilding During the Past Year

In a statement on shipbuilding in the United States and abroad during the year 1932, H. Gerrish Smith, president of the National Council of American Shipbuilders, points out that on Dec. 31, 1932 there were under construction in private American shipyards, and referring only to seagoing vessels of 1000 gross tons or over, four privately owned vessels of a total gross tonnage of 53,652, and seven government vessels of a total displacement tonnage of 47,900.

It is interesting to note that similar figures for Jan. 1, 1932 included 20 privately owned vessels of a total gross tonnage of 204,839 and eight government owned vessels of a total displacement tonnage of 49,900. Also, that during the year 1932, in the category referred to, only one vessel was contracted for a naval cruiser of 10,000 tons displacement. During the year 1932, 13 privately owned vessels of 122,017 gross tons and one government vessel (a cruiser) of 10,000 tons displacement were launched. The record of vessels delivered during the year in this category included 16 privately owned of 151,187 gross tons, and two government owned of 12,000 tons displacement.

Going back to Jan. 1, 1931 there were 28 privately owned vessels of 316,900 gross tons and six government owned vessels of 47,800 tons displacement under construction in the private American shipyards.

Contracts awarded during the year for smaller craft, Mr. Smith reports, included five lighthouse tenders, two coast guard patrol boats, and a number of tugs, barges, dredges, scows, and miscellaneous other craft; also, that there has been a substantial decrease in orders for small craft.

There have been a number of sizeable reconditioning jobs, but the volume of repair business as a whole, has been far below that for the years just prior to 1931. However, during 1932, no less than 14 vessels, extensively reconditioned were delivered to their owners.

Yacht building has been almost wholly inactive during the year, although there was a noticeable increase in the building of smaller yachts toward the end of the year.

The number of men employed on new merchant and naval construction in seaboard shipyards on Jan. 1, was about 10,000 which is 40 per cent less than the number employed a year ago. The outlook for new vessel contracts, either merchant or government, is at the present time poor. The only naval vessels authorized, the construction of which in private shipyards seems to be probable soon, are four destroyers.

The amount of shipping laid up throughout the world, Mr. Smith reports, has increased during the year and at the present time is about 15,000,000 gross tons or 20 per cent.

The best outlook for replacement tonnage at such time as world conditions change and shipping revives is based on the fact that a considerable percentage of American sea-going tonnage is well over 20 years old.

Index for 1932

THE index for the year 1932 covering all the valuable editorial material which appeared in MARINE REVIEW *last year, is now ready for distribution. Copies will be sent on request, without charge, to those subscribers who have kept a complete file of copies and desire the index.*

Pennsylvania R. R. Ferry

On Jan. 21 the Virginia Ferry Corp. a subsidiary of the Pennsylvania Railroad Co., sent word that the bids received Jan. 3 for building a passenger and automobile ferry are not made public and that no award had yet been made. The proposed vessel is to have twin screw steam propulsion and a speed of at least 18 miles. The length is about 260 feet, and the proposed vessel is intended for service on Chesapeake bay between Cape Charles, Old Point Comfort and Norfolk, Va.

Plan a Third Superliner for Italian Line

That the ambitious program of Italy for a place on the seas has not come to an end with the recent commissioning of the new superliners REX and CONTE DI SAVOIA is indicated by reports that the directors of the Italian line are considering the construction of a third superliner to complete and round out the service now maintained by the two mentioned above.

By constructing a third superliner, a sailing of express steamers from Genoa every ten days would be possible. A suggestion is also being made that in place of building a third superliner, one or more of the palatial and comparatively new vessels, the AUGUSTUS, CONTE GRANDE, ROMA and CONTE BIANCAMANO, be re-engined to give the necessary speed. All four of these liners, sumptuously equipped and each having accommodations for 2000 passengers, now have a speed of over 20 knots.

The first of these two plans will probably be the more satisfactory. It is a well established fact in naval architecture that the power installed in any ship should bear a proper relation to hull characteristics and without radically changing these characteristics, such as lengthening out both forward and aft, it would probably not be economical to try to increase speed by merely increasing propulsive power.

With the whole hearted support of the Italian government as indicated by the aids it is affording the merchant marine, it is not unlikely that some definite action will be decided upon. The very material reduction in time on the transatlantic voyage brought about by the REX and CONTE DI SAVOIA is obviously of great importance to the Italian nation; and by improving the means of communication, commerce will be stimulated, and what is not to be ignored, the world prestige of Italy will be greatly enhanced. There is the further consideration of value as naval auviliaries.

Contract for repairing the United States engineer dredge DECATUR, New Orleans, was awarded to the Todd Dry Dock & Repair Co., at $10,220.

Bunker Prices

At New York

	Coal alongside per ton	Fuel oil alongside per barrel	Diesel engine oil alongside per gallon
Jan. 17, 1933	4.50@5.00	.80	4.08
Dec. 16,	4.50@4.75	.80	4.75
Nov. 18,	4.50@4.75	.80	4.08
Oct. 18,	4.50@5.00	.80	4.08
Sept. 18,	4.50@5.00	.80	4.08
Aug. 18,	4.50@5.00	.90	4.08
July 18,	4.50@5.00	.90	4.04½
June 18,	4.50@5.00	.80	3.70
May 18,	4.50@5.00	.75	3.70
April 18,	4.50@5.00	.70	....
Mar. 18,	4.50@5.00	.65	3.25

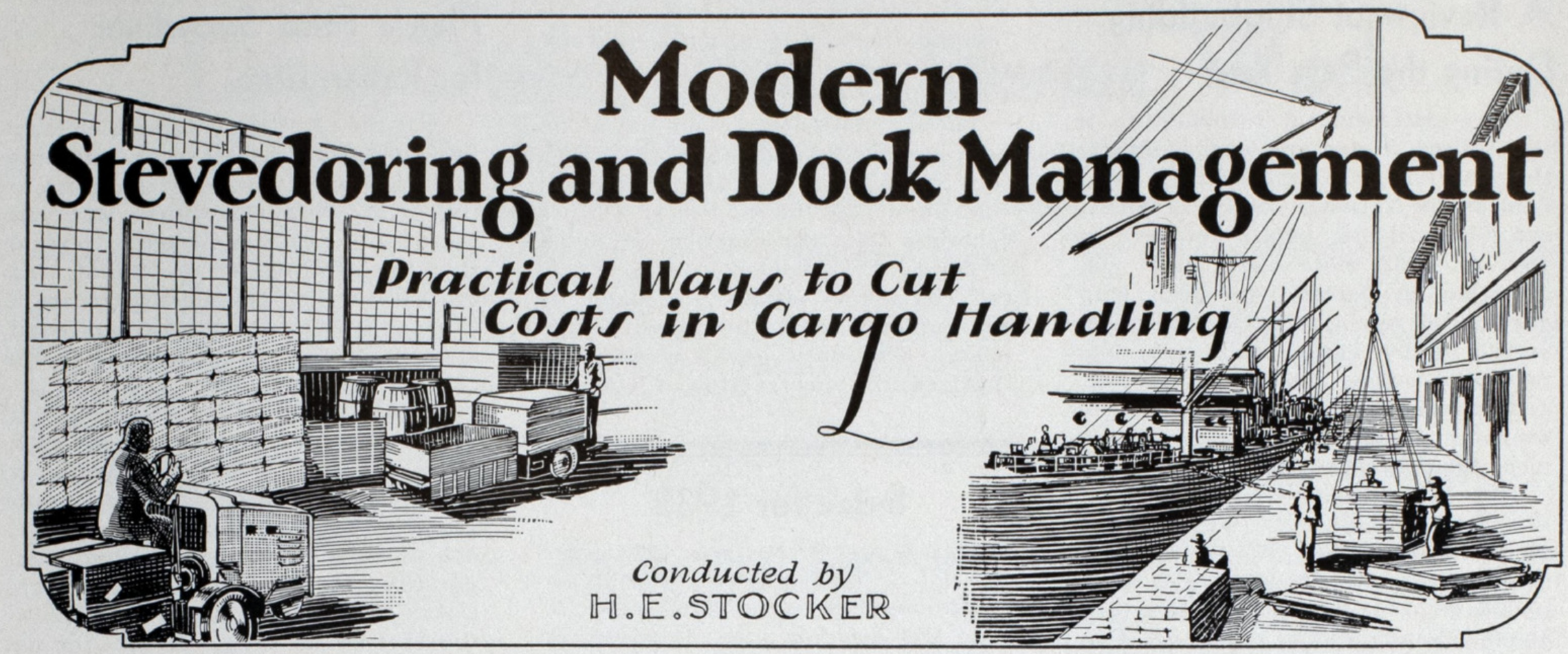
At Philadelphia

	Coal trim in bunk per ton	Fuel oil alongside per barrel	Diesel engine oil alongside per gallon
Jan. 17, 1933	4.50@5.00	.80	4.04
Dec. 16,	4.00@4.75	.80	4.04
Nov. 18,	4.00@4.75	.80	4 04
Oct. 18,	4.50@5.00	.80	4.04
Sept. 18,	4.50@5.00	.80	4.04
Aug. 18,	4.50@5.00	.90	4.04
July 18,	4.50@5.00	.90	4.08
June 18,	4.50@5.00	.80	3.69
May 18,	4.50@5.00	.80	3.69
April 18,	4.50@5.00	.75	3.21
Mar. 18,	4.50@5.00	.65	3.21

Other Ports

Jan. 17, 1933

Boston, coal, per ton..	$7.10
Boston, oil, f. a. s., per barrel	$0.81½
Hampton Roads, coal, per ton, f.o.b., piers	$4.25
Cardiff, coal, per ton...	14s 0d
London, coal, per ton...	—s —d
Antwerp, coal, per ton..	16s 9d
Antwerp, Fuel oil, per ton.	67s 6d
Antwerp, Diesel oil, per ton	82s 6d
British ports, Fuel oil...	67s 6d
British ports, Diesel oil.	82s 6d



Established Principles and Methods Will Produce Better Results

By H. E. Stocker

METHODS and equipment needed to put most cargo handling operations on an economical basis exist; the reason they are not used is due to the organization "friction" which prevents the infiltration of new ideas; and also to the lack of time for the men in charge of cargo handling operations to keep fully informed and to have adequate time to devote to this important part of the business.

"Organization friction" prevents the effective functioning of the organization and early adoption of new ideas, thereby causing huge waste to the company. The major job of the executives, is the reduction of this "friction."

The problem of organization management is a problem of human relationships. It is a complex problem, because human nature is complex. The human equation complicates all the problems of management. Without an understanding of the human factor, the finest methods and equipment fall short.

It is profitable to look at the problem of organization from the perspective of history—the history of large handling and industrial management. The problem is to determine the most effective type of organization as indicated by a study of organizations which have functioned satisfactorily and those which have not. However, it is possible to get better results, if well established principles and methods of management are used, rather than methods which the history of industrial management shows to be far less effective. Perfection should not be expected in an organization, because, the elements of which it is constituted; human beings, are not perfect.

Organization *engineering* will never be possible; direction of an organization is not an engineering matter, it is a political matter, not the politics of a democracy, but rather the politics of a dictatorship, or an autocracy.

Consider the Human Element

An engineer plans in detail to the last screw and then executes his plan with relatively little adjustment. This is impossible with an organization plan, because, the human factor is the principal factor and being unstable, cannot be calculated with the degree of accuracy with which the physical and chemical factors can be calculated. There is no measurement of egotism, vanity, pride and many other things that motivates human behavior.

Because we cannot enter into the mind of man, it is impossible to get the best results unless we determine that which motivates the mind of men and be guided thus by that knowledge. The study of the history of successful organizations is an effective guide in organization planning. The best management of industrial concerns (large and small) in this country, are characterized by certain definite features. If a well managed concern does not apply all the rules of good management, it does apply enough of them to make a well managed concern.

Trust, receptiveness to new ideas, and criticisms, are the keynotes of organizations which have achieved the best results. In the most effective organizations, free questioning and criticisms are encouraged, and an answer and a reason given to any question raised, are always forthcoming. While some leaders lay down certain instructions which must be followed, the more successful method has been to suggest certain provisional lines, and then to discuss them, and each factor relating to them, with the various subleaders concerned, adjusting the objectives to local conditions and opinions in each subdivision, until a final agreement has been reached, upon which all are substantially agreed.

Careful organization and forethought, marks every stage of the work. A personal interest on the part of executives in visiting the various departments of an organization is necessary, contrasted with an interest expressed alone in paper reports and instructions. In this lies an understanding of the characteristics of the vital human element.

By the visits of executives, the

subordinates in the organization are trained in understanding the methods and policies of their leaders more effectively than by any other method. Hence, the organization functions with maximum effectiveness. The greater ease by which this co-operative effort is created in small organizations, is probably the reason for the ability of small organizations to meet changing conditions more quickly than is possible in large organizations.

The history of successful organizations makes clear, also, that the most important parts of the business should be given full time attention of competent executives.

Importance of Cargo Handling

In most shipping organizations, cargo handling is the most important part of the operating department. Because of its importance, cargo handling justifies the expense of at least one executive's full time. This is true even in a small company. The full time attention of a man will develop economies which will more than offset the expense. There are lines which could save more by employing a cargo handling executive to bring its methods up to standard, than by buying new and more suitable equipment. The best stevedores recognize that supervision is the most important factor in obtaining economical cargo handling.

The usual practice is for the marine superintendent, operating manager or pier superintendent to supervise cargo handling operations, in addition to the duties involved in buying fuel, supervising buying of stores, employing of ship officers, preparation of schedules and all the other multifarious duties connected with the operation of a fleet of ships. Even when a man of executive calibre is assigned to cargo handling alone, he devotes little or no time to ports other than those in close proximity to his office. A lack of co-ordination exists between all ports, yet the best results can be obtained only by co-ordinating the work of all ports.

It is physically impossible for an operating executive to keep informed fully with reference to cargo handling matters in his own company, and still less to keep in touch with developments elsewhere. When the mate and the stevedore get into an argument on whether a large case should be lashed to a stanchion to prevent shifting at sea, there should be someone available who can give good decision quickly. To do this the person must be familiar with conditions.

"In many instances, efforts made to reduce costs, are not in themselves sufficiently broad and complete to attain results which are possible. Further, it often happens that an accomplishment of a reduction in cost is taken as a finality without regard to a thorough co-ordination of men, methods and machines through which further lowering of cost may be possible."

The employment of a properly trained man to devote his full time to cargo handling, is justified by the direct results obtainable, without giving credit to the improved relation with the shipping public because of better service and reduction of claims. In a small company, a $6000 a year executive, reduced cargo handling costs $6000 a year, in less than three months. In a large line, a well trained executive devotes his entire time to supervising cargo handling at all ports of the line. This line's profits in 1930 were made up entirely of the savings in large handling as compared with four to five years previous. No small part of this excellent record has been due to competent supervision of cargo handling.

Coordination of the efforts of stevedores and pier employes at all ports will, in many cases, pay the cost of this thorough supervision alone. In one line, this coordination was attempted partially by assigning a ship's officer to supervise the loading of westbound cargo at the three loading ports. Although this man was not trained properly to obtain the best results, he was able to save his salary and traveling expenses many times over, by planning and executing the stowage of the ships at each port, with regard to the stowage at the other ports. This man's lack of training, prevented the company obtaining much better results that were possible if a well trained man had been selected. For example, when this company began to carry cast iron pipe, he experimented with various methods of stowage at the cost of large claims and irritated shippers. A properly trained man would have known where to have obtained information readily available from companies which had been handling cast iron pipe for ten years.

Coordination of the work of the traffic and operating departments is a source of great weakness in most companies. Business is lost because the two departments have different points of view and are judged by different sets of facts. A cargo handling executive selected properly, could do much to coordinate the operating and traffic activities along the lines of most frequent friction and thereby increase profits.

Economical cargo handling involves more than economical stevedoring cost per ton and good stowage; it involves claims and the effective cooperation with connecting lines and shippers, without which the greatest overall economy cannot be obtained.

Effective Cooperation Is Needed

The economies of the skid method of shipping and freight handling, cannot be availed of without the cooperation of railroads and other transportation lines, interchanging freight with steamship lines. The operation of a terminal used jointly by steamship lines and railroad companies offers opportunities for reduction of costs, if effective cooperation is worked out by the organizations involved.

The design of new terminals can be improved often, so that greater economy of cargo handling is possible, if there is a more effective cooperation between all interests. Some recently constructed terminals have been obsolete from the day of completion, because of lack of a broad study of the requirements of economical handling of cargo. Much could have been contributed to a terminal designed for economical cargo handling, if the shipping companies involved, had had an executive whose entire time was devoted to cargo handling.

Claims can be reduced provided someone in the organization has time to investigate thoroughly, shortages and damages of cargo. Coastwise and intercoastal lines pay out considerable sums in concealed loss, damage, claims. One line reduced the amount of these claims by a thorough study of the causes of damage. Enamelware claims were excessive in spite of extraordinary care in handling. Finally, the claims were eliminated by proving to the shipper, that the damage occurred prior to receipt by the steamship line, because the packing was inadequate.

THE possible economies and other benefits of providing a proper organization for dealing with the cargo handling problem on a broad basis justifies unusual attention at this time. Economies are of particular interest at this time because, in addition to the normal ills of the shipping industry, comparatively high construction costs, competition of low cost operated ships and the ease of establishment of shipping lines by simply shifting ships, we have small cargoes, cut rates and other conditions, coincident with world wide depression.

The Author

Passenger Trade for 1932 Shows Some Decline

The Cunard line and its associated companies carried a total of 147,751 passengers east and westbound between the United States, Canada and Europe during 1932. In addition 29,681 passengers were carried on cruises bringing the total for the year up to 177,432 passengers.

It is interesting to note that about 7300 more passengers sailed to Europe on Cunard liners in 1932 than in 1931.

During 1932 the Hamburg-American line carried 83,000 transocean passengers, as against 84,000 in 1931. The North German Lloyd line carried more than 163,000 altogether during 1932, compared with 173,000 in 1931.

The total movement of eastbound and westbound passengers between the United States, Canada and Europe, during 1932 amounted to 859,969, as against 941,975 for 1931, or a decline of 82,006. These are official figures compiled by the Transatlantic Passenger conference.

Canal Transits Increase

Transit of commercial vessels through the Panama canal in the month of December totaled 431 and the tolls amounted to $1,781,940. These figures compare with 387 commercial vessels transiting the canal in December, 1931, with total tolls of $1,757,869.54 collected.

During the last six months of 1932, a total of 2206 commercial vessels passed through the Panama canal, with aggregate tolls of $9,761,429. These figures compare with 2345 commercial vessels with an aggregate toll of about $10,783,133 in the same period of 1931.

Peten to Enter Service

The new turbine electric liner PETEN, the last of six sisterships to be completed for the United Fruit Co. will leave the yards of the Newport News Shipbuilding & Dry Dock Co. on Feb. 15 to undergo sea trials off the Virginia capes. She will sail from New York March 2 on her maiden voyage for Havana, Panama and Costa Rica, in which trade she will be regularly employed.

Entry of the PETEN in the New York-Costa Rican service will give to the trade a fleet of three new liners, the sisterships QUIRIGUA and VERAGUA, having been placed in the service a short time ago. These three fine new passenger liners will make possible weekly sailings from New York and Costa Rica, with calls at Havana and Panama.

The other three sisterships, the ANTIGUA, TALAMANCA, and CHIRIQUI, were entered in the United Fruit Co. fast express service between California and the west coast of Central America, late last year and have proved exceptionally popular with the traveling public. The Pacific coast service has also made possible a new intercoastal line between New York and California with transfer at the Panama canal.

Furness-Bermuda Liner

Construction work on the new $8,000,000 flagship, QUEEN OF BERMUDA, for the Furness-Bermuda lines, New York to Bermuda service, is approaching completion at Vickers Armstrong Ltd., Barrow-in-Furness, England. The new super luxury liner is to be ready for extensive trials off the British coast on Feb. 14. According to present schedule, she will sail from England, Feb. 23, arriving at New York, March 3, and will leave the latter port, Mar. 7 on her maiden voyage to Bermuda.

The QUEEN OF BERMUDA is slightly larger than her sistership, the MONARCH OF BERMUDA, and is the largest and fastest ship built for regular operation in this service. She is fitted with turbine electric machinery for twin screw drive and is designed to maintain a speed in excess of 22 knots. Her length is 580 feet and beam 77 feet. Luxurious accommodations are provided for 750 first, and 30 tourist class passengers. Addition of the new ship will make it possible for the Furness Bermuda line to handle a total of 3160 passengers weekly, or 1580 in each direction.

Mexican Coastwise Trade

The probability of American and other foreign steamship companies being allowed by the Mexican government to engage in Gulf coastwise service is reported from Mexico City. If this comes about, it will be the result of a plea from the chamber of commerce of Merida, capital of Yucatan, to the confederation of Mexican chambers of commerce, that the confederation urge the ministry of communications and public works to reconsider its policy of allowing only craft flying the Mexican flag to engage in Gulf coastwise service.

Error is Corrected

In the article on the new coast guard cutter ESCANABA appearing in January issue of MARINE REVIEW, an error was made in ascribing the condensers to the C. H. Wheeler Co. The condensing equipment was furnished by the De Laval Steam Turbine Co. to the builder of the vessel as a part of the propelling machinery, and the condensers were made by the Foster Wheeler Corp.

Hamburg-American Head, Dr. W. Cuno Dies

In the death on Jan. 3 of Dr. Wilhelm Cuno, chairman of the board of the Hamburg-American line, Germany has lost one of its outstanding men. He succeeded to the chairmanship of the line on death of Albert Ballin in 1918. Dr. Cuno was born in Thuringia, Germany on July 20, 1876. He studied at the universities of Berlin and Heidelburg and received his degree as doctor of laws at Breslau university.

From 1906 to 1917 he served in the ministry of finance at Berlin. In 1912 he was appointed privy councillor. During the first three years of the war he was economic advisor in the ministry of finance and director of the German grain organization.

On Nov. 1, 1917, Albert Ballin called him into the board of management of the Hamburg-American line. After Mr. Ballin's death, shortly following the Armistice in 1918, Dr. Cuno was made chairman of the managing board. In November, 1922 he became chancellor of Germany and held that office for one year.

The reconstruction of the Hamburg-American line fleet to its present size was carried out during the years while he was at the helm. The line's extensive building program now for the time being nearly completed, includes the new motorships CARIBIA and CORDILLERA described on page 24.

When he left political office as chancellor in 1923, he decided to devote all of his efforts to business and especially to shipping, feeling that in that way he could best render service to his country in helping to bring back its old standing and honored position in world shipping and trade.

He lived at Aumuehle, a suburb of Hamburg where his beautiful residence, the House in the Sun, was a gathering place of men famous in international affairs, both economic and political. He is survived by his widow and five children.

Wallace G. Smith, vice president and sales manager, Cramp Brass & Iron Foundries Co., Philadelphia, has resigned to become sales manager, specialty section, Baldwin Locomotive Works, Eddystone, Pa. James J. Nelson has been made vice president and sales manager of the Cramp Brass & Iron Foundries Co.

The Babcock & Wilcox Tube Co. has appointed Fritz Hoving its West coast district sales manager. He will make his headquarters with the company's West coast agent, the A. M. Castle & Co. in Los Angeles. He will also maintain active touch with the offices of that company in San Francisco and Seattle. This company handles seamless steel and alloyed tubes and pipe manufactured by the Babcock & Wilcox Tube Co.

Useful Hints on Cargo Handling

RECENTLY some companies which have for years maintained their own stevedoring organizations have turned their work over to a contracting stevedore. There has been no doubt of the advantage of contracting stevedore for these companies and there is evidence to indicate other companies could make the same change and save money.

In two instances, the contractor's rate was less than the companies cost figures, yet after a few ships he was making money.

The reasons for this better showing by a contractor are several in number. A first class contractor has able men in executive positions. These men have had not only years of experience but they are men who are intelligent enough to get a lot of value from their experience. It is the quality of one's experience rather than the quantity of experience which makes a man valuable as an executive of a stevedoring organization.

A contracting stevedore's business is his life blood and he spends his time on the job of stevedoring. An equally good executive in a shipping company will undoubtedly be president or in some other position requiring attention to many duties besides those connected with stevedoring.

The flexibility with which a contractor's organization can be adjusted to changing conditions at terminals is important. A man in charge at one pier can be utilized at another pier when the first pier is not working. While this man is at the second pier the other pier is not charged with his salary.

Equipment may be used in the same manner reducing idle time and, therefore, reducing the overhead charge against the cargo.

The interchange of ideas and information which exist in a first class contractor's organization is itself worth much to a steamship company because it gets the benefit of the combined experience of able men more effectively.

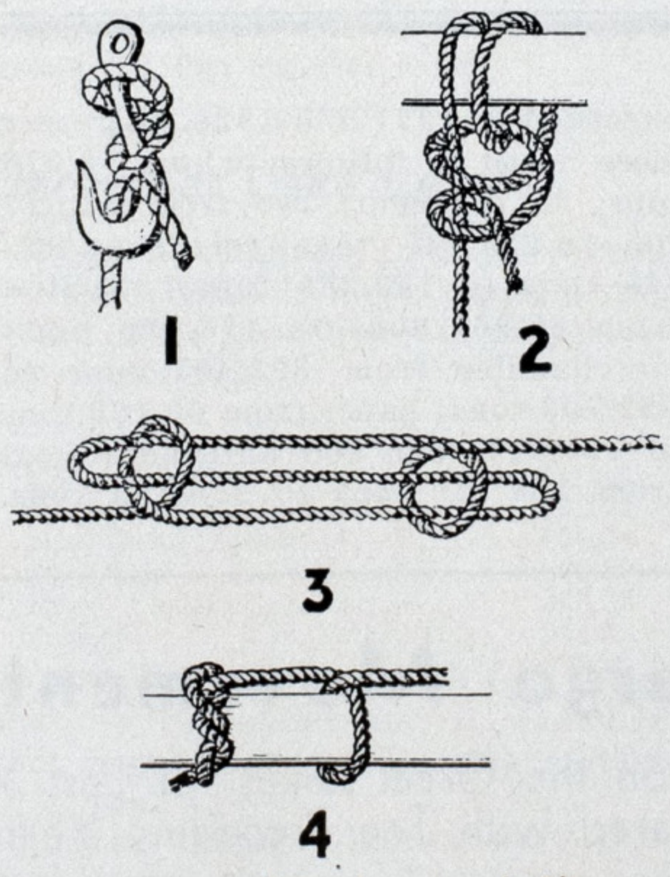
Relative Efficiency

COMPARISON of relative efficiency of two or more cargo handling operations is difficult. However, at least the basis of comparison should not be utterly meaningless. The comparison of discharging time when 5000 tons is handled in a week, with another case where 5000 tons must be handled in three days is worthless. Allowance must be made for the congestion, fatigue of the men and other new factors that enter into the problem.

THIS page is being devoted to short items on all matters having to do with the more efficient turnaround of ships. These items are intended to be of a helpful nature.

We will welcome for this page brief descriptions, illustrated if possible, of any better or safer way of performing any function in cargo handling. Also, any questions submitted will be answered by the editor.

Below will be found a reproduction in practically full size of safety instruction card No. 1 issued by the National Safety council recently in a new experimental service called safety instruction cards. Continuation of the service will depend upon the reception received.



Some Rope Hitches and Slings That can be Depended Upon

1. Double Blackwall Hitch—for hitching rope to a hook for hoisting.
2. Fisherman's Bend—for fastening a rope to a ring or anchor.
3. Sheepshank—for shortening a rope or to pass by a weak spot.
4. Timber Hitch and Half Hitch—for lifting spars. Can be easily loosened when strain is taken off, but will not slip under a pull.

On Capital Investments

IF COMPANY'S money is spent on cargo handling costs, it is gone forever. If it is spent on equipment, a return is earned on these dollars, which have been converted from expense to capital investment. This conversion increases performance.

Since 6 per cent of $100,000 is $6000, operating costs of $6000 expended indefinitely, is the equivalent of $100,000 invested now.

Six thousand dollars invested in materials handling equipment instead of operating costs, may easily earn $6000 a year.

Adequate Terminals Needed

A GOOD example of comparative cargo handling efficiency is the line discharging a loading for 42 cents per ton and another line handling a complete cargo for 75 cents a ton. The difference is not alone character of cargo, but the result is largely due to a well coordinated operation using adequate terminals. The management of the low cost operation is alert for opportunities of cutting costs, speeding the work and reducing accidents. Remarkable advances have been made in the past five or six years. The economics effected have proved very helpful in the past two years of depression.

This alert management has equipped its terminals with tractors and trailers of improved design and operated this equipment to the best advantage. The terminals are adequate for the cargo handled while the terminals of the other line are inadequate. This inadequacy of terminals is the most important difference in the two operations and is an obstacle to thoroughly efficient operation.

" 'The man who is worthy of being a leader of men, will never complain of the stupidity of his helpers, of the ingratitude of mankind, nor of the inappreciation of the public. These things are all a part of the great game of life, and to meet them and not go down before them in discouragement and defeat, is the final proof of power' " Elbert Hubbard.

Restriction of sling loads and forcing extra men in to a gang works against the best interests of longshore labor. Ships have been diverted from a port that goes to the extremes in this matter.

Up and Down the Great Lakes

Bulk Traffic in 1932—Vessels Lost—Grain Diverted to Canadian Ports—Lake Levels—Propeller Club Organized

DURING the season of 1932, the total traffic through all four locks of the canals at Sault Ste. Marie, Mich., and Ontario, amounted to 20,481,047 short tons. This was 24,125,278 tons less than the 1931 total and was the lightest tonnage since 1897. The large decrease was in iron ore which totaled only 3,607,119 tons as compared with 24,259,964 tons for the season of 1931 and the record of 64,917,703 tons in 1929. It is a new low record for the past forty years. Upbound coal was also light. Soft coal shipments amounted to only 7,190,371 tons, or about half of the normal tonnage, though it is only some 2,700,000 tons less than for 1931. Wheat, however, increased over 1931 shipments from 189,272,600 bushels for that year to 207,227,164 bushels for the year 1932.

By comparison, the Welland ship canal has been doing quite well, which, it is felt, is due to improvements to navigation. Traffic increased to 8,535,641 tons for 1932 from 7,273,886 tons for 1931. This sets a new high record for the Welland ship canal, the previous record being 7,439,617 tons for the year 1928. Wheat increased from 2,146,418 tons in 1931 to 2,926,509 tons in 1932; corn from 81,685 tons to 300,686 tons; rye from 26,011 tons to 232,368 tons; gasoline from 131,645 tons to 296,522 tons; merchandise from 297,017 tons to 522,588 tons; pulpwood from 209,415 tons to 301,997 tons; and coke from 139,313 tons to 292,255 tons. The largest decrease included 205,868 tons of barley, 84,153 tons of petroleum and oil, 74,057 tons of bituminous coal, 30,207 tons of sand, and 241,517 tons of iron ore. The heavy movement of wheat through the St. Lawrence canals was the chief factor of increasing the total tonnage in these waters from 6,036,980 tons in 1931 to 6,693,800 tons in 1932. This, however, was not a record as it was exceeded in 1927 and 1928. Increases were noted as follows: wheat 76,075 tons, 39 per cent; rye from 41,017 tons to 221,747 tons; corn from 83,845 tons to 139,285 tons; gasoline from 63,906 tons to 173,022 tons; merchandise from 392,487 tons to 582,703 tons; paper from 60,103 tons to 121,814 tons and anthracite coal from 134,730 tons to 230,453 tons.

Bulk Cargo Movement

Movement of bulk cargo on the Great Lakes during 1932 was the lowest since the year 1901. The 1932 movement of iron ore, coal, grain and stone totaled 41,672,761 net tons, while the total of these commodities for the year 1901 totaled something like 39,600,000 tons. The total bulk movement for 1932 shows a decrease from that of 1931 of 32,475,924 net tons and a reduction of 70,856,096 net tons from the movement in the year 1930. Conditions were so much worse in 1932 than they were the year before, that at no time during the season did the peak of operations give employment to more than 35 per cent of the total available fleet. This peak was reached about the middle of October, but the major part of the season saw only 20 to 25 per cent of the fleet capacity employed. A comparison of the total movements of various bulk commodities during the past ten years is given in the accompanying table. This much may be said, that an improvement, but to what degree is problematic, is looked for during 1933.

Decreases were shown in barley by 50 per cent, bituminous coal by 20 per cent, and sand by 61 per cent. A rather remarkable feature was the light passenger traffic which for 1932 amounted to only 1784 passengers as compared with 43,866 in 1931 and 51,848 in 1930.

The United States canal at Sault Ste. Marie was opened April 17 and closed Dec. 13, 1932, a season of 241 days. The Canadian canal was opened on the same day, but was closed on Dec. 16.

Passenger Transportation

Water transportation will come into its own in bringing visitors to the grounds of Chicago's World fair, and also in carrying them in smaller craft from one part of the grounds to the other.

In addition to the facilities of the regular steamship lines, steamships and large launches will operate from both north and south points. Passengers will be discharged at two landings in the exposition. Steamers and motor boats will also be available for sight-seeing trips along the exposition grounds and the waterfront of Chicago. All of these facilities will be handled by private corporations arranging contracts for this purpose with the exposition.

Lake Vessels Lost

The casualties on the Great Lakes during the last season included the loss of four lives in the sinking of the freighter JOHN J. BOLAND JR. in Lake Erie, Oct. 6. In addition to the freighter referred to four other vessels were lost through destruction by fire. Three of these were passenger steamers, the DOVER, the KEYSTONE, and CITY OF TOLEDO. The fourth was the wooden freighter KALKASKA. The tonnage, last totaled 5869 gross tons.

Bulk Cargo Movement---1932

Shipments on the Great Lakes for Last Year Compared with Ten Preceding Years

Year	Iron ore Gross tons	Coal net tons	Grain, various kinds net tons	Stone net tons	Total net tons
1932	3,567,985	24,857,369	8,890,409	3,928,840	41,672,761
1931	23,467,786	31,176,359	9,479,640	7,208,946	74,148,865
1930	46,582,982	38,072,060	9,851,229	12,432,628	112,528,857
1929	65,204,600	39,254,578	10,021,099	16,269,612	138,574,441
1928	53,980,874	34,823,002	16,372,116	15,677,551	127,331,248
1927	51,107,136	34,794,291	14,692,536	14,033,376	120,760,195
1926	58,537,855	31,011,544	12,087,316	12,628,244	121,289,502
1925	54,081,298	28,127,359	13,320,346	11,351,948	113,370,707
1924	42,623,572	25,860,515	15,222,787	9,225,624	98,047,327
1923	59,036,704	33,137,028	11,850,446	9,920,422	121,029,004
1922	42,613,726	19,868,925	14,267,020	7,592,137	89,455,455

American Ports Feel Loss Of Canadian Grain

The Ottawa conference has apparently begun to make itself felt particularly in wheat shipments on the Great Lakes. The tendency is clear for Canadian grain to find its outlet through Canadian ports. The Dominion bureau of statistics shows that during December Canada exported 27,735,999 bushels of wheat of which 17,206,177 bushels were for the United Kingdom. Of this amount 1,313,216 bushels were shipped through United States ports and all shipments to all other countries passed through Canadian ports. In December a year ago, only 6,605,036 bushels were shipped to Great Britain via Canadian ports.

Representations are being made to Washington that the change is due to the imperial preference agreed to at the Ottawa conference. It is pointed out that there is considerable uncertainty whether wheat shipped from Canada via United States ports to Great Britain would benefit by the six cents a bushel differential allowed on Canadian grain.

Capt. W. G. Stewart Dies

In the death of Capt. Walter G. Stewart on Dec. 30 last, the shipping industry on the Great Lakes loses one of its most experienced and active executives. Since 1913 until the time of his death, he was fleet superintendent of the Interlake Steamship Co., the second largest fleet on the Great Lakes, owning and operating 49 steam vessels.

Captain Stewart came from a family long engaged in lake shipping. He was born in Algonac, Mich., on April 4, 1869 and began his career on the lakes when he was about seventeen years old. His rise was rapid and he had the distinction of obtaining his master license at the age of 21, becoming the youngest ship master on the Great Lakes. His first command as master was the steamer C. F. BIELMAN.

He joined the Gilchrist line in 1896 as master of the CUMBERLAND, and the last ship he sailed on for the same line was the H. P. MCINTOSH in 1906. He then came ashore as fleet captain for the Gilchrist Transportation Co. in 1907, and came to Cleveland in 1908 as superintendent for the line.

When the Gilchrist company was taken over by the Interlake Steamship Co in 1913, he immediately became fleet superintendent of the latter company. Throughout the years with this company, he played an important part in the construction of new vessels, crowning his career in this respect by aiding in the design and supervising the construction of the steamer HARRY COULBY, the largest American lake cargo carrier, and rated perhaps as the most elaborately equipped freighter ever built for service on the Great Lakes. Her guest quarters are commodious and so sumptuous that they would do credit to a first class passenger vessel.

Captain Stewart was a member of the executive committee of the Lake Carriers association, and his personal knowledge of navigation and ship

operation, as well as his sound judgment in all matters affecting channels and aids to navigation, will be greatly missed by the association. He was a member of the Cleveland lodge of the International Shipmaster's association. He was also a member of various clubs and Masonic organizations. His widow, daughter and two grandchildren survive him.

December Lake Levels

The United States Lake survey reports the monthly mean stages of the Great Lakes for the month of December as follows:

Lake	Feet above mean sea level
Superior	602.22
Michigan-Huron	577.68
St. Clair	573.99
Erie	570.39
Ontario	244.30

Lake Superior was 0.28 foot lower than in November and it was 0.16 foot lower than the December stage of a year ago.

Lakes Michigan-Huron were 0.26 foot lower than in November and they were 0.62 foot lower than the December stage of a year ago.

Lake Erie was 0.18 foot lower than in November and it was 0.27 foot lower than the December stage of a year ago.

Lake Ontario was 0.08 foot lower than in November and it was 0.36 foot higher than the December stage of a year ago.

Propeller Club Organized At Port of Cleveland

A meeting for organizing a Propeller club in the port of Cleveland was held on Dec. 22 and was attended by some 80 representatives of maritime affairs in the port. Capt. R. W. England presided as chairman and the principal speaker was Arthur M. Tode, president of the Propeller club of the United States. Encouraged by the turn-out, it was decided at that time to organize such a club in Cleveland.

At the second meeting held Jan. 5, the organization was completed by the election of officers and a board of governors. The officers are: A. B. Kern, president; A. T. Wood, vice president; G. C. Hutchison, secretary; R. H. Burns, treasurer. About 80 men have already indicated their intention to join the club. It is expected that nearly as many more will become members at the next meeting to be held Feb. 13. All those joining at that time will also be classed as charter members.

The meeting on Feb. 13 will be addressed by A. J. P. Vandermyn, president of the Pittsburgh Propeller club. Other speakers have not yet been decided upon. Regular meetings will be held each month every second Monday evening. The meeting on Jan. 5 was addressed by L. C. Hinslea on "The proposed port commission for Cleveland."

The board of governors elected at the last meeting include, W. P. Schaufele, J. H. Lawrence, W. C. Dressler, R. W. England, J. L. Wallace, H. N. Herriman, F. S. Hutchison, L. C. Hinslea, Day Peckinpaugh, G. A. Myers, G. S. Kendrick, and W. F. Meister. The officers and board of governors will act until the midyear meeting, at which time election will be held for the period of the fiscal year.

International Shipmasters

The International Shipmasters' association, Cleveland Lodge No. 4, will hold its twentieth annual reception and party, Friday evening, Feb. 3, at the Hollenden hotel. Capt. E. K. Male is chairman and the executive committee includes, Captains E. C. Downs, John Clark, Robert Thompson, L. C. Hinslea and W. H. Hill.

Officers elected at the last meeting include, Capt. Earl Downs, president; Capt. L. C. Hinslea, first vice president; Capt. John Clark, second vice president; Capt. Robert Thompson, secretary; and William G. Campbell, chaplain, Capt. John Rourke was made marshal; Capt. William Hill warden and Capt. Thomas W. McGnaw, sentinel.

Reviews of Late Books

The Speed and Power of Ships, by Rear Admiral D. W. Taylor, C. C., U. S. N. (ret.), cloth, 350 pages 12 x 9 inches, 266 illustrations, published by Randell Inc., Washington, under auspices of the United States Shipping Board, Bureau of Construction and Finance, price $2.50. Supplied by MARINE REVIEW.

The author has recently completed a revision of his book, *The Speed and Power of Ships*, and it is the revised edition that this review deals with. The author served for many years as head of the United States experimental model basin at the Washington navy yard, and later during and after the World war as chief constructor of the navy. He gained world wide renown for his original work in model basin experiments and analysis of results and their practical application to hull and propeller design.

Originally published in 1910, this work proved a monumental landmark in the field of ship design based on propulsive consideration. Since the original publication, a vast amount of experimental research on ship propulsion has been carried out both in this country and abroad. In addition thereto, extensive investigations have been undertaken by the United States experimental model basin under the supervision of Admiral Taylor, acting for the United States shipping board. Therefore, the United States shipping board has undertaken the publication of the revised edition.

The revised volume possesses the same schematic arrangement as the original volume. Whereas the original work was bound into two volumes, one for text and one for plates, the revised work is bound into one volume, the plates being interspersed throughout the text. All of the design plates have been gathered into definite sections within the volume for convenience of study and establishing comparative analyses.

The revised edition has been cast into five "books" and five appendices. The subject matter of book I, dealing with fundamental considerations has been radically revised. The revision of book II, on resistance, incorporates the latest researches in the fields of frictional and residuary resistance together with additional studies on form characteristics such as bulbous bow, parallel middle body, etc. The whole question of propellers and propulsion is dealt with in book III. This division presents the derivation and method of use of the new basic series diagrams for propeller design. In addition there are presented conclusions from closed channel tests on cavitation. Book IV is a new discussion on the subject of trials and their analyses. Book V, on the powering of ships, is presented with but minor modifications over that of the original volume.

The revised volume contains five appendices. The first deals with the work of Osborne Reynolds—his classical experiments with flow through pipes—and the application of a similar analysis to the flow around planes and ship models in water. The remaining four appendices contain contours of residuary resistance from the standard series, contours of residuary resistance for bulbous bow characteristics, curves of resistance for parallel middle body series, and basic series diagram for propeller design, respectively.

The revised edition is anticipated in January, inquiries for which may be sent to MARINE REVIEW, or may be directed to the United States Shipping Board, Bureau of Construction and Finance, Navy building, Nineteenth and Constitution avenue, N. W., Washington. Checks or money orders should be made payable to Treasurer, United States Shipping Board, Merchant Fleet Corp.

Refrigeration in Ships, by A. D. Gray, cloth, 113 pages 6¼ x 3¾ inches, published by J. B. Lippincott Co., supplied by MARINE REVIEW for $1.50 plus 15 cents postage, and in Europe by the Penton Publishing Co., Caxton House, London.

The author of this book has the grade of first class engineer of the British board of trade. A number of textbooks have been published on refrigeration. but this little book is intended to serve in clearing up the practical side of the subject. For instance, the difficulties met with in service by young sea going engineers are as a rule due to an insufficient grasp of first principles and lack of knowledge of the properties of the various chemicals and gases used. It sets out to supply this information in an easily understandable manner.

Section one deals with definition essential to an understanding of refrigeration, such, for instance, as sensible heat, latent heat, total heat, specific heat, etc.

Section two deals with the chemical properties of the gases commonly used. Section three deals with the elementary principles of refrigeration including the laws of thermodynamics, marine refrigerating plant and the compression principle. Section four deals with refrigerated cargo, and section five, with running and upkeep.

In the back part of the book several pages are devoted to useful data and to properties of the gases carbon dioxide and ammonia.

This book will be, we feel sure, of great usefulness to every sea going engineer, and also to all others interested in the transport of refrigerated produce.

A Count in the Fo'C'Sle by Count Jean Louis D'Esque ("Chips"); cloth, 298 pages 8½ x 5½ inches, published by Brentano's, New York; supplied by MARINE REVIEW, for $2.75, plus 15 cents postage; and in Europe by the Penton Publishing Co., Ltd., Caxton House, London.

Because the author of this book, in his years at sea as ship's carpenter had become familiar with MARINE REVIEW and therefore requested the publisher to send us a copy we are glad to again depart from the usual custom of confining book reviews in these columns to those heavy and stodgy tomes generally referred to as technical books.

Nothing could be livelier or of more intriguing interest from beginning to end than this stirring and amusing record of a long life at sea. The author has a most remarkable background. He was born in Virginia and is a descendant of French nobility. His grandfather, Count Jean Alphonse D'Esque served as an officer under Marshall Ney. He is 47 years old and as recently as Oct. 10, 1929 was honorably discharged as ship's carpenter on the motorship DEFIANCE. His career at sea, covering a period of 35 years, goes back to the latter days of the sailing ship. He is an artist and a poet, but is universally known by his many friends as "Chips." He is now retired from active service and occupies himself with his writing and wood carving and his memories of a crowded past.

In this book he lives again in the days of tall sailing ships and rusty freighters and visits strange ports in forgotten corners of the world. From the day when still a youth in his teens he was discharged from the navy and found himself shanghaied aboard a windjammer bound for the Horn, life became a series of amazing hazardous and often ludicrous adventure.

In attractive easy style, he recounts an astonishing variety of adventures comparable to any of those associated with the sea in older times. He tells of attacks by river pirates on the Yangtze and by natives in the South seas; of hell-ships that even the rats abandoned and of the part he played in the World war on troop ships and freighters, having had the luck of being torpedoed and still living to tell the tale. This book is a simple straight-forward, vivid and factual tale; it will delight every lover of adventure and the sea.

Normandie Cannot Transit Panama, Suez Canals

The new French superliner NORMANDIE now under construction will be strictly limited to the Atlantic unless it is decided to send her south around the Cape of Good Hope or through the Straits of Magellan. She is too deep because of her load draft of 37 feet to transit the Suez canal and she is much too wide, also too long, and draws about a foot too much water to pass through the Panama canal.

The Panama canal locks have a useful length of a 1000 feet and a width of 110 feet with a depth of 41 feet over the sill. Vessels drawing 36 feet have transited the Panama canal. The NORMANDIE'S length overall is 1027 feet, her beam at the main deck is 117 feet 9 inches, and her beam at the promenade deck is 119 feet 6 inches.

As far as beam is concerned, it might be possible for the NORMANDIE to go through the Suez canal as it has an average breadth of 147 feet, but the mean depth is only 30 feet, and, without a very considerable expenditure and years of labor, this would effectively block her passage.

Pacific Freight Market

The chartering department of the General Steamship Corp. Ltd., San Francisco, on Dec. 31, issued the following report on the Pacific freight market:

The month of December showed some general improvement in volume of business and slight increases in the general rate structure. Between Christmas and the New Year there was more business about than was apparent for the rest of the month.

The past year has been a very depressed one for shipping in general, but we believe owners and shippers alike will come to the conclusion that the long looked for turnback to previous good times will not take place as suddenly as expected. The trade has shown a tendency to adjust itself to present conditions by reducing operating expenses, thus bringing the cost of new business somewhere near the level of what the times will afford. If this becomes widespread, it will do more to stabilize the shipping industry than all our dreams of better times "just around the corner." Assuming that this way of looking at matters is becoming more or less general, it is felt that the coming year will show more constructive improvement.

Seatrain Lines Service

Testimony of representatives of trade associations appearing before the interstate commerce committee in the hearing being held on Seatrain service between New York, Havana, and New Orleans, gives some interesting facts on the operation of this line which is opposed by other ship operators and railroads.

New markets are actually opened by the nonbreak-bulk service of the Seatrain lines for many commodities such as salt, building board, paper, lumber, canned goods, brass pipe, and others. If not served in this manner these shipments would not move either by rail or by water. Southern lumber, for example, had been driven out of the eastern markets by western shipments via the Panama canal, but is now able to reappear in these markets by using the Seatrain service and at the same time giving the railroads a short terminal haul at each end of the water trip.

In shipping salt, this service, it was testified, saves $60 per car. This commodity could not move to the New York market by rail because such shipments cost $11.50 per ton, whereas the salt itself sells in that market at $7.48 per ton. Terra cotta and building board, witnesses stated, found new markets by being able to pack and ship nonbreak-bulk from origin to destination via the new waterline. Machinery, it is said, moves via this line with no damage or less than formerly, again finding new markets because of that fact. It was also testified that the new service gives the railroads short hauls in the South and East which would not otherwise be obtained.

Canadian Pacific Lines

While sailings from the United States ports decreased 17 per cent during 1932, sailings from Canadian ports decreased only 4 per cent, according to William Baird, steamship passenger traffic manager for the Canadian Pacific. The Canadian Pacific lines, Mr. Baird said, had a good year in 1932. During this period, 121,375 passengers were carried and the aggregate of Atlantic east bound passengers from Canadian ports show an increase while those from American ports decreased.

East bound sailings from Canadian and American ports during 1932 numbered 680 compared with 820 in 1931, indicating greatly reduced expenses.

The EMPRESS OF BRITAIN, said Mr. Baird, continues to enhance her reputation. She made another speed record last summer between Cherbourg and Father Point, Que., by making the passage in four days, eight hours and 52 minutes.

Capt. Oscar Scharf, former first officer under the late Commodore Nicolaus Johnsen, sailing with him through all parts of the world on the S. S. COLOMBUS, and recently in command of the S. S. STUTTGART, has been appointed master of the S. S. EUROPA

The Progressive Shipowner Finds Business Good

In times like these it may be well to emphasize specific instances of good business.

When the SANTA PAULA, second of the four new ships to enter the Grace Line fleet, sailed from New York Jan. 7 on her maiden voyage to Havana, Panama, Costa Rica, El Salvador, Guatemala, Mexico, California, Victoria, B. C., and Seattle, every stateroom was occupied and a long waiting list was left behind.

When the HAITI, second of the two new passenger and cargo vessels of the Colombian Steamship line, arrived in New York on Jan. 9, completing her maiden voyage to Haiti, Jamaica, Colombia, and Cristobal, she had a full list of passengers and also a full cargo. Incidentally she performed to the entire satisfaction of her officers and passengers and easily maintained her fast schedule of 3½ days from New York to Port au Prince; 4½ days to Kingston, Jamaica, 5½ days to Puerto Colombia and Cartagena, Colombia; and to Cristobal, Canal Zone, in about 8 days.

All 21 Luckenbach coastal and intercoastal freight steamers, since their entrance into the incidental passenger carrying trade last November, have been operated at utmost passenger capacity with a waiting list in several ports.

It is difficult to conceive of anything more definite to indicate that even in these times business can be good when the needs and desires of customers are carefully studied and an attractive service to meet the requirements is provided. Every pessimist in the shipping business would do well to consider the specific instances of success referred to and to ponder not so much on how poor his business is as on what action he might take to improve his service to make it appeal to potential customers which it has now been demonstrated do exist.

Carroll D. Winslow Dies

At the age of 43, on Dec. 27, Carroll D. Winslow, president and treasurer of Electric Ferries Inc., died at his home in New York.

He had a notable war career, serving in both the French and the American aviation corps. He graduated from Sheffield Scientific school, Yale university, in 1910. Electric Ferries Inc., which he founded in 1926, operates diesel electric vehicle ferries between Twenty-third street, Manhattan, and Weehawken, N. J. He is survived by his widow, two daughters and one son.

The new Italian liner REX has set a record for commercial vessels between New York and the Canal Zone. The time between New York and Colon was three days and eight hours.

European Shipping

(*Continued from Page* 19)

advantages of the Burntisland or similar hulls and at the same time numerous fittings in their machinery which reduce their running expenses but increase their first cost and overhead charges.

Government Aids German Yards

If British shipbuilding has been deplorable, in Germany it has been even worse, although the yards have received great help under the scrapping scheme which the government inaugurated to clear the lists of a number of obsolete ships. The original idea was a grant of 23,000,000 marks, but the funds were not available and the actual loan is 12,000,000, although even that is exceedingly useful. In Russia the shipbuilding program under the five year scheme has been proceeding steadily and it is remarkable that the government has been able to do as much as it has. Most of the time has been lost by the difficulty in getting delivery of diesel engines, yet in the second five year plan the Soviets have decided on the more complicated diesel-electric system

The Russian government has helped out its shipbuilding program by considerable purchases abroad, and also a number of contracts to foreign yards. It has acquired on long terms a number of steamers from the North German Lloyd line, and has agreed not to operate them in any competing service. Apparently most of them will be in the Black Sea-Vladivostock service. It is interesting to note that two ships recently completed for the Soviets by Burmeister & Wain are propelled by steam, for hitherto both owner and builder have been among the most enthusiastic on the diesel engine.

This unexpected order brings up the old question of steam versus diesel machinery, and perhaps the most striking feature of 1932 has been the remarkable increase in the economy of the steam engine in its competition with the diesel. Among other instances the German experiment of fitting a cargo liner with a Benson boiler working at 3200 pounds pressure has been a success.

Oil Produced from Coal

In England more and more attention has been given to the problem of obtaining oil from coal, and excellent progress has been made both with the hydrogenation and low temperature carbonization systems, the former getting by far the greater attention. The low temperature carbonization people have just supplied the Royal navy with a shipment of fuel oil to be tested under the boilers of men-of-war, and experiments with diesel engines are to be carried out shortly. In the meantime it has proved possible to produce motor fuel from coal at a price as low as the present cost of imported fuel, plus the duty.

With the same idea of adapting Britain's coal supplies to modern requirements the experiments with colloidal fuel are continuing and meeting with gratifying success. The Cunard liner SAMARIA gave the new fuel a test with a mixture of 40 per cent of coal and 60 per cent of oil, but in the latest experiments these figures have been reversed so that if the fuel is generally adopted by ships which now burn oil under boilers it will mean a valuable extra market for the coal industry, although not enough to make the revolutionary change that was prophesied in some quarters when the experiments were first announced. The next question is whether it will be possible to use colloidal fuel in diesel engines, for it will be remembered that the first idea of Dr. Rudolf Diesel was not to use oil at all but very finely pulverized coal.

Altogether the year 1932 passes without any mourning from European shipping and shipbuilding men, but there is at least reasonable ground to hope for some improvement in 1933.

New Pier 54 Completed

The Cunard Steamship Co., Pier 54, New York, was destroyed by fire May 6 last year. On Jan. 10, completely rebuilt into a splendid modern structure, Pier 54 again began to function in receiving the AQUITANIA.

On Jan. 11 the Cunard line, with John Gammie as host, gave a dinner on the AQUITANIA in appreciation of the fine co-operation on the part of all those connected with the rebuilding of the pier, including representatives of the insurance, engineering and construction companies and the city. In welcoming his guests, Mr. Gammie expressed the appreciation of the Cunard company for their co-operation.

He spoke of "The unstinted willingness of our insurance friends, our construction engineers and later on our contractors to bend every effort to mitigate the unfortunate results of the fire—amply borne out by the fact that a grand pier has been erected in less than eight months.

"You have all been instrumental in making this possible and I really finally find it difficult to express the gratitude and thanks of the Cunard line to you for having made this record achievement possible."

Suez canal earnings for December for the first time since March, 1930, exceeded figures for the corresponding month in the preceding year. For the entire year 1932, earnings were 14 per cent below 1931. The earnings for 1931 were 10 per cent below 1930.

Washington Ready in May Will Join Manhattan

A. J. McCarthy, general manager of the Roosevelt Steamship Co., agent for the United States lines, recently announced that the new liner WASHINGTON under construction at the New York Shipbuilding Company, Camden, N. J., will be delivered May 1 and is scheduled to sail on her maiden voyage from New York on May 10.

Though the new vessel is a sistership of the MANHATTAN, a number of changes have been made. Two new public rooms, a lounge and a children's playroom, have been added to the third class accommodation. A number of additional staterooms will be equipped with private baths. The specialty shops on the WASHINGTON will be located on the promenade deck. Decorations of the public rooms will be similar in period and style to the MANHATTAN, but different colors and fabrics will be used.

The MANHATTAN'S record since entering service is impressive. She carried 7304 passengers in the first five months of her operation, or an average of 1461 on each round voyage. This good performance was accomplished in spite of the fact that as she entered service Aug. 10, she was not in time to get the benefit of the eastbound tourist movement, which is an important source of patronage.

New Matson Liner Sails

The third of the new Matson liners, the LURLINE, built by the Bethlehem Shipbuilding Corp., Quincy, Mass., sailed from New York on Jan. 12 with practically a full list of passengers.

The maiden voyage of the new liner under command of Capt. C. A. Berndtsen is a 30,000 mile cruise from New York to Hawaii, the South Seas and the Orient via San Francisco. After the completion of the cruise, she will enter service in the California-Honolulu run of the Matson Navigation Co. The MALOLO is now engaged in this service. The first sistership, the MARIPOSA, was fully described in the February, 1932, MARINE REVIEW. The MARIPOSA and MONTEREY, the other sistership, are now in regular service between San Francisco, the islands of the South seas and the Antipodes.

On Jan. 8 the Todd Shipyards Corp., New York, announced that Jonathan Moore, well known in shipping circles, has become associated with the Todd organization with offices at 25 Broadway. Mr. Moore was formerly principal owner of T. A. Crane Sons Dry Dock Co. He will devote his activities to sales. His sons, Jonathan Moore Jr. and Millard S. Moore, will be associated with him as will also L. P. Gwyer.

Personal Sketches of Marine Men

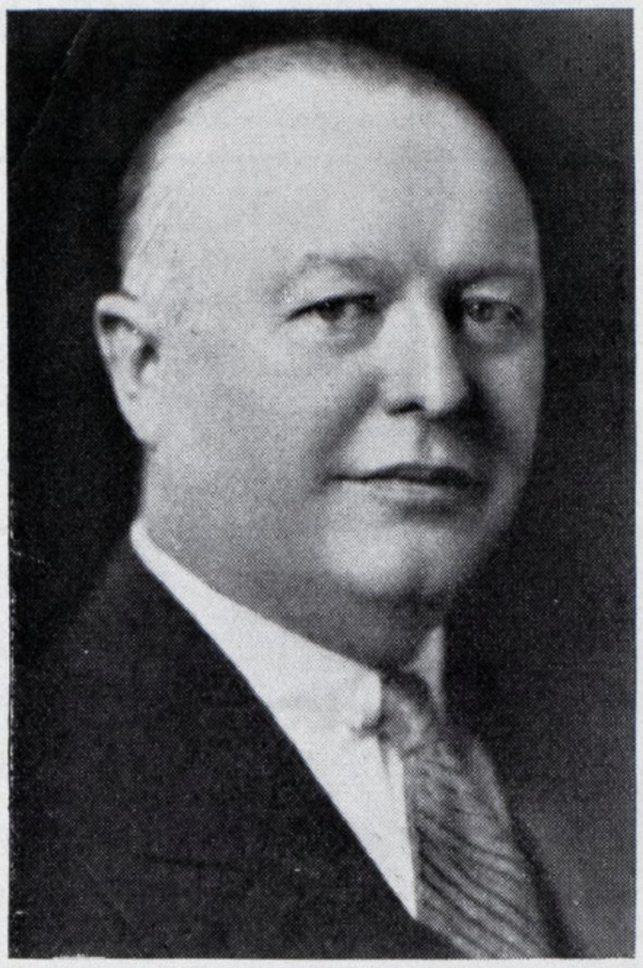
Robert L. Hague, Vice President and General Manager, Standard Shipping Co.

By Ben K. Price

NOW in executive charge of operation of the largest fleet of tankers in the world, he began his career by going to sea under sail.

DURING and after the World war he served with distinction as manager of the construction and repair of the government merchant fleet.

HE COMBINES to a rare degree, sound technical training, diversified thorough practical experience and an understanding of human nature.



FROM ordinary seaman to executive operator of the largest fleet of tankers in the world, with outstanding service to American shipping during the World war—such, briefly, is the impressive record to date of Robert L. Hague, vice president and general manager of the Standard Shipping Co., 26 Broadway, New York City.

Born in New England, the son of an Episcopalian minister, Mr. Hague received his technical training at Worcester Polytechnic Institute, Worcester, Mass., and then went to sea under sail. Following a brief period he took up railroading, becoming an engineer and served his time as a machinist. Once again returning to sea as an oiler he became an engineer in the service of the American Hawaiian Steamship Co. for which company he later acted in the capacity of assistant marine superintendent in charge of construction on the Pacific coast.

In 1909 Mr. Hague became affiliated with Standard Oil Co. of California—first as assistant superintendent and then as marine superintendent in charge of operation and design construction, and repair.

When the United States entered the war Mr. Hague was appointed assistant manager in charge of construction on the Pacific coast for the Emergency Fleet Corp. of the United States shipping board. Following this he went to Washington as manager of the construction and repair department, division of operations, of the corporation.

In 1917 he assumed complete control and supervision over repairs of all shiping board vessels with the added responsibility of reconditioning German ships for passenger service. During this period the LEVIATHAN was put back into condition for the passenger trade.

In 1920 Mr. Hague resigned his position as director of construction and reconditioning for the shipping board to become manager of the marine department of the Standard Oil Co. of New Jersey in New York. In 1927 this department was replaced by the Standard Shipping Co. and Mr. Hague was made vice president and general manager.

Ruddy complexioned, thick shouldered and of medium height, Mr. Hague presides in an office of destinctly a marine nature, having on its walls a fine collection of marine paintings. Here one also finds a number of interesting ship models.

Last year the Standard group added to its combined fleet a motor tanker of 17,980 tons deadweight named for Mr. Hague. The vessel was sponsored by Mrs. Hague formerly Mary Lewis of the Metropolitan grand opera. Upon the occasion of their visit to Italy for the launching Mr. Hague was summoned to Rome for an interview with Premier Mussolini who conferred upon him the order of Grande Ufficiale of the Crown of Italy.

Mr. Hague holds the rank of lieutenant commander in the United States naval reserve and is a member of the Society of Naval Architects and Marine Engineers, India House, the Engineers club, and the Downtown Athletic club, all of New York, and the Institute of Marine Engineers of London. He is also a member of the board of managers of the American Bureau of Shipping.

Other affiliations include the Larchmont and Indian Harbor Yacht clubs, and the Lambs and Players clubs of New York.

Marine Review

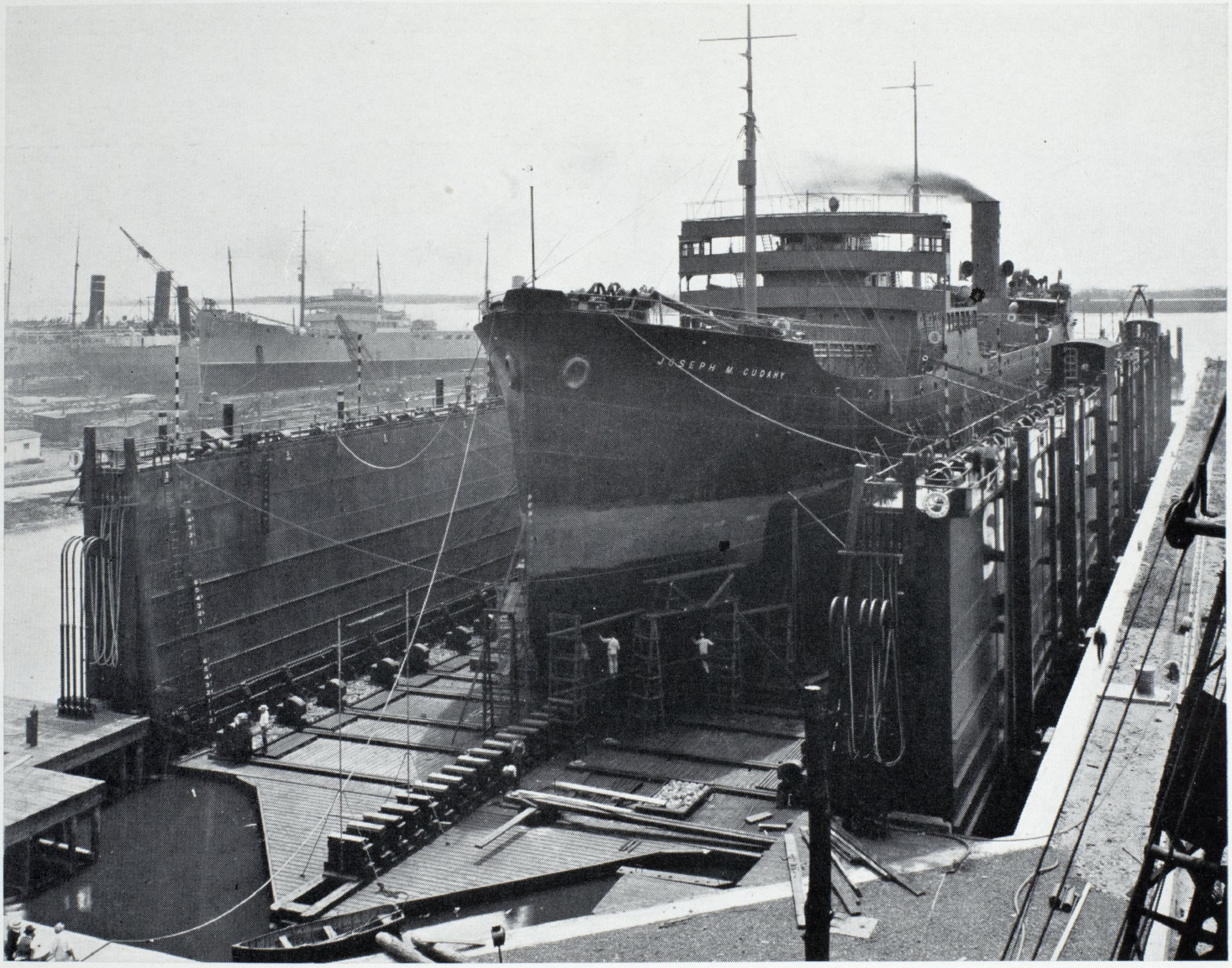
Reg. U.S. Pat. Off.

The National Publication Covering the Business of Transportation by Water

Palm Court, S. S. MANHATTAN

February, 1933

MARINE REPAIRS



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Distinctive Ship Section
Annual Feature

Ship owners, operators, shipbuilders, naval architects and marine engineers find the Distinctive Ship Number of Marine Review of greatest usefulness, because it gives them in one place, under one cover, the most definite and accurate information on every type of ship recently completed. The following quotations from letters received demonstrate the practical value of this issue.

Shipyard executive:

The April issue certainly embodies useful and valuable information on various vessels, the accuracy of which is of prime importance.

Prominent steamship manager:

"Your Distinctive Ship issue showing various types of vessels with concise descriptions we consider particularly useful as a reference volume."

New York marine engineer:

"We use the section devoted to Distinctive Ships as it is of special interest and valuably informative."

Prominent naval architect:

The April number of Marine Review serves a very useful purpose in bringing before the profession in one place the salient points of progress of the last year

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Marine Review

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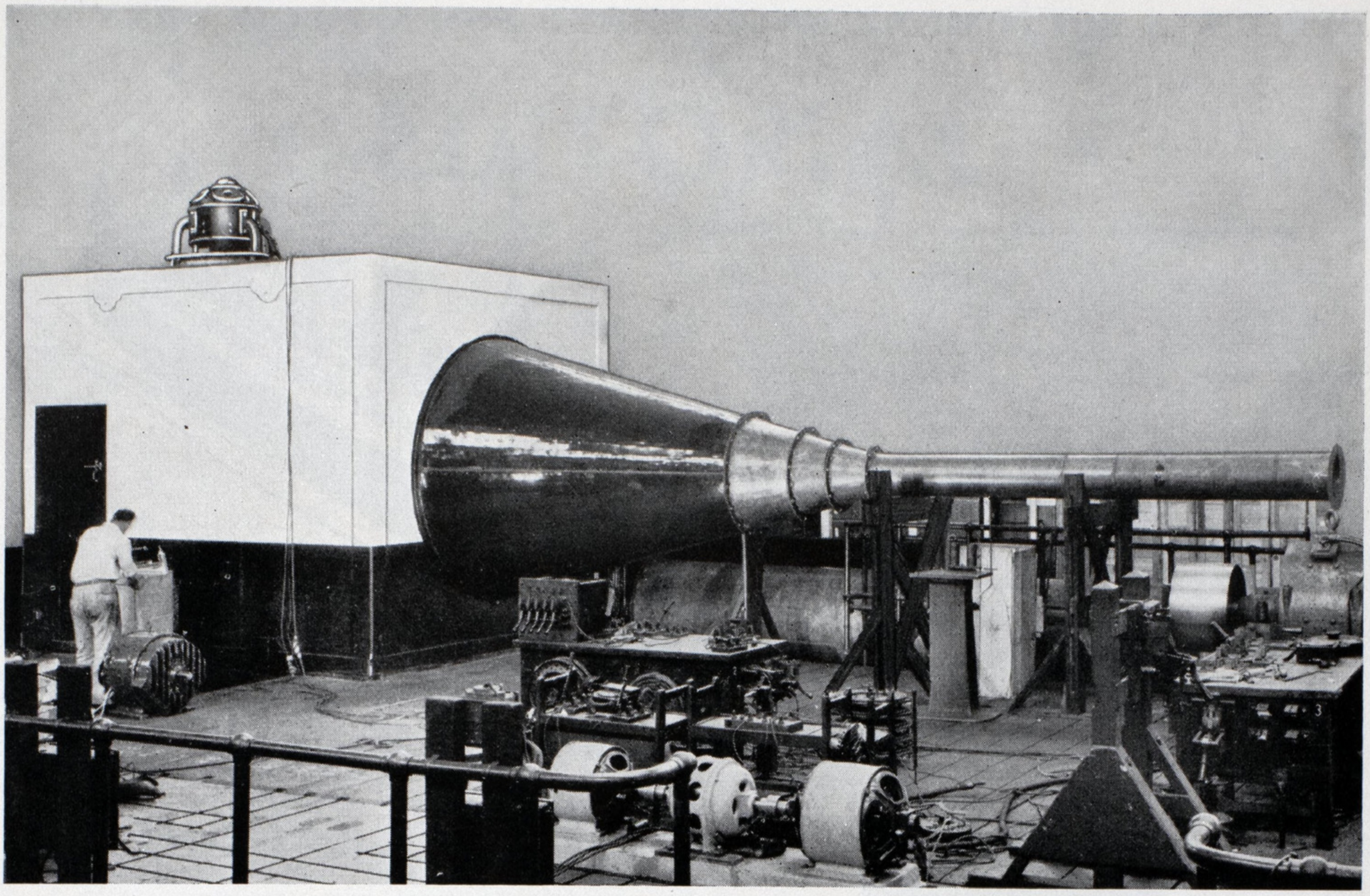

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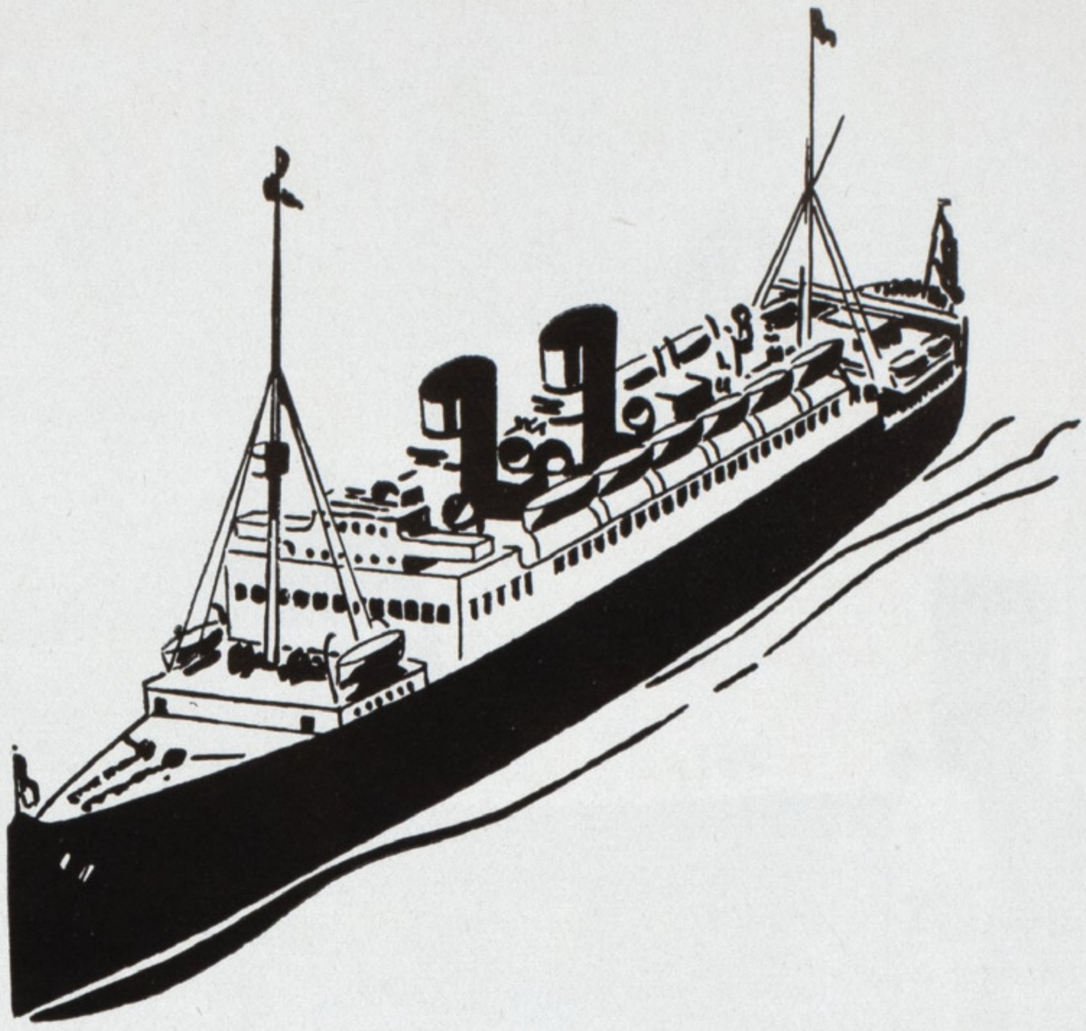

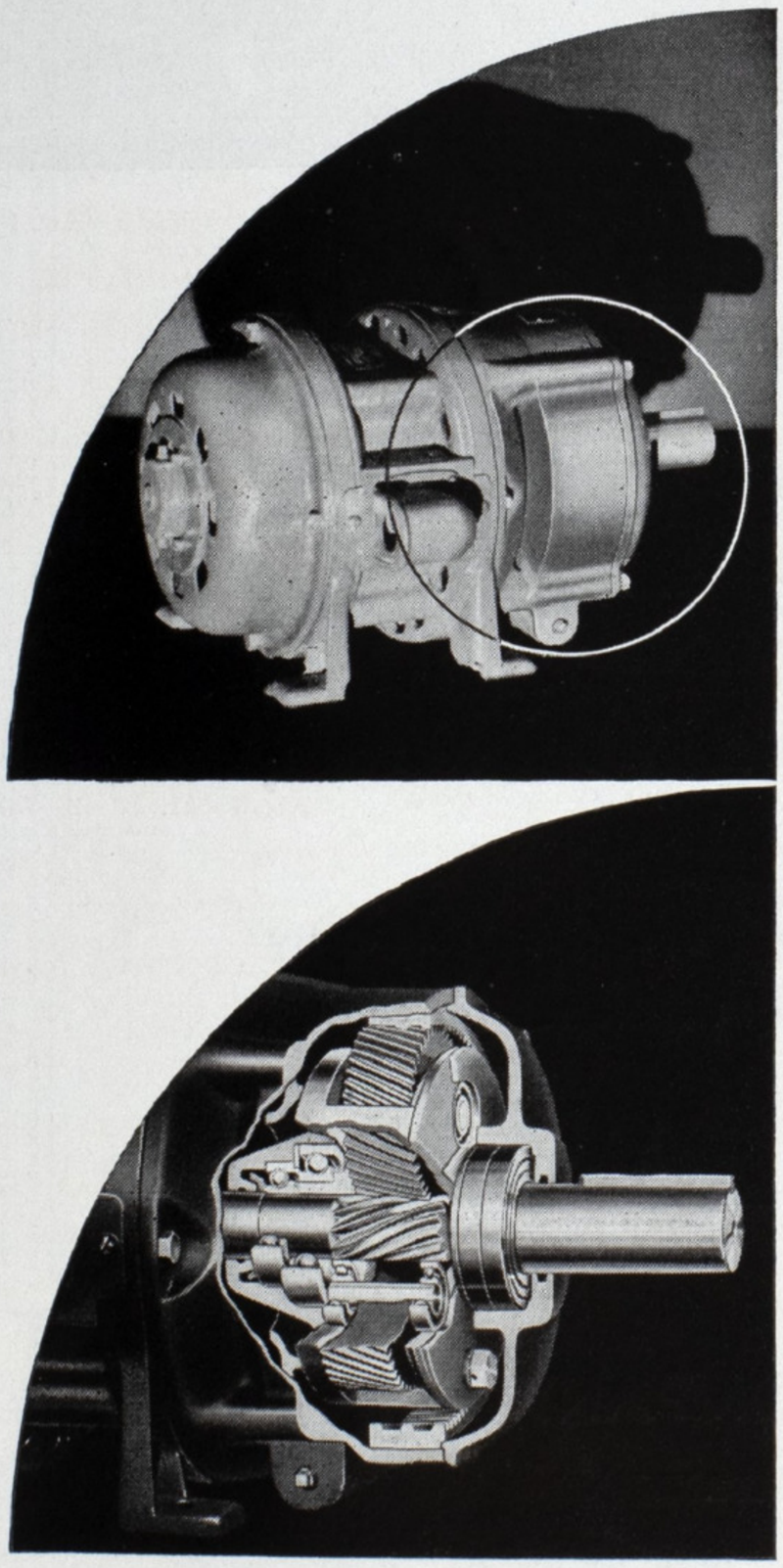

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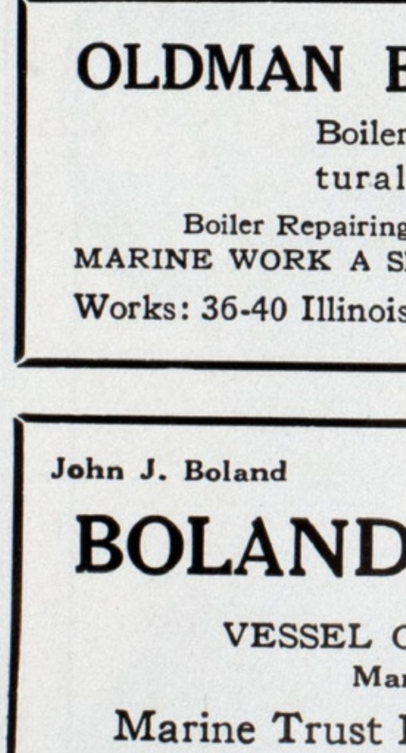
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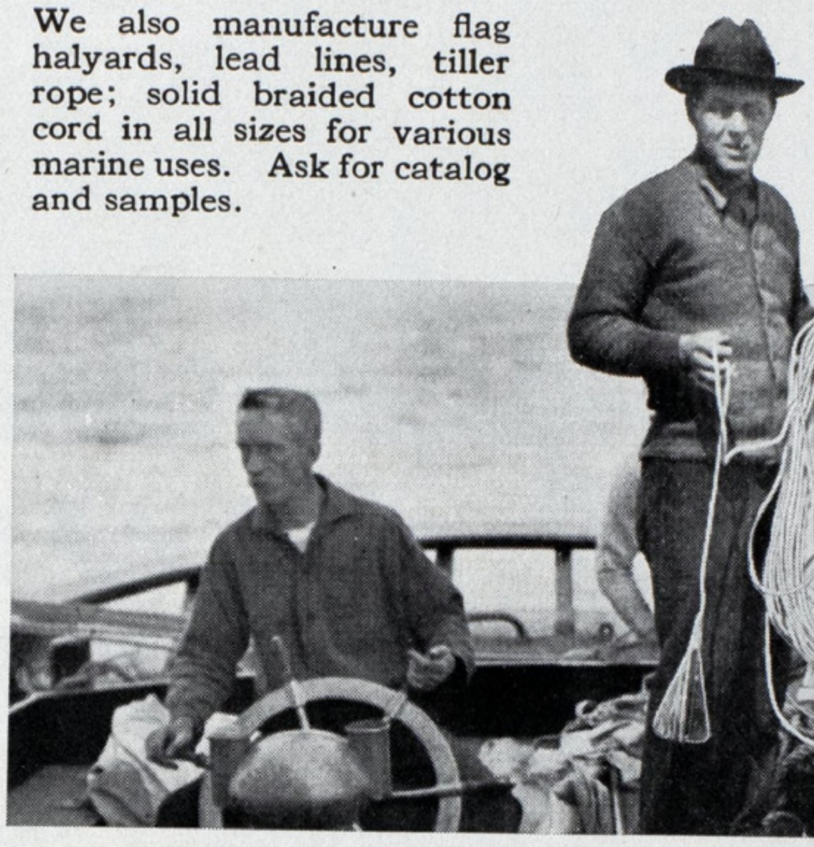

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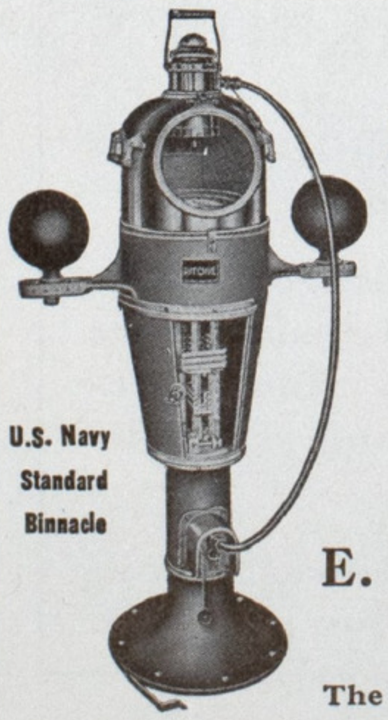

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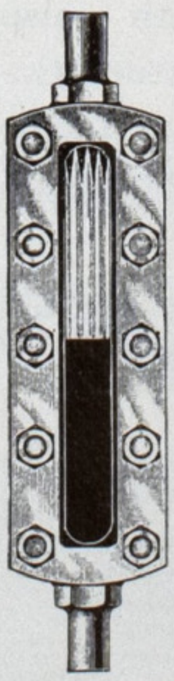

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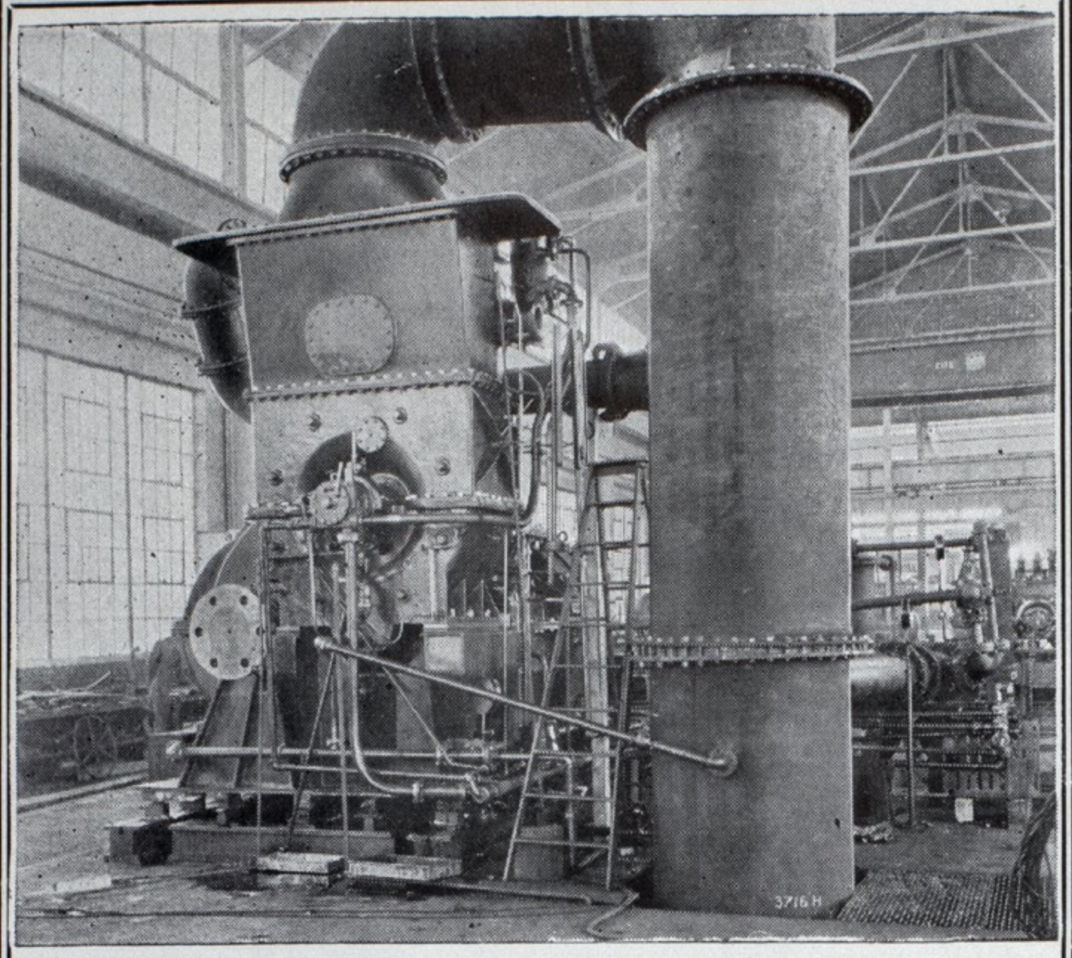

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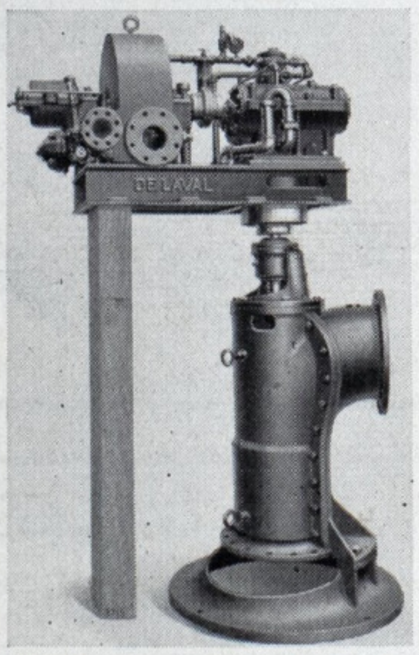

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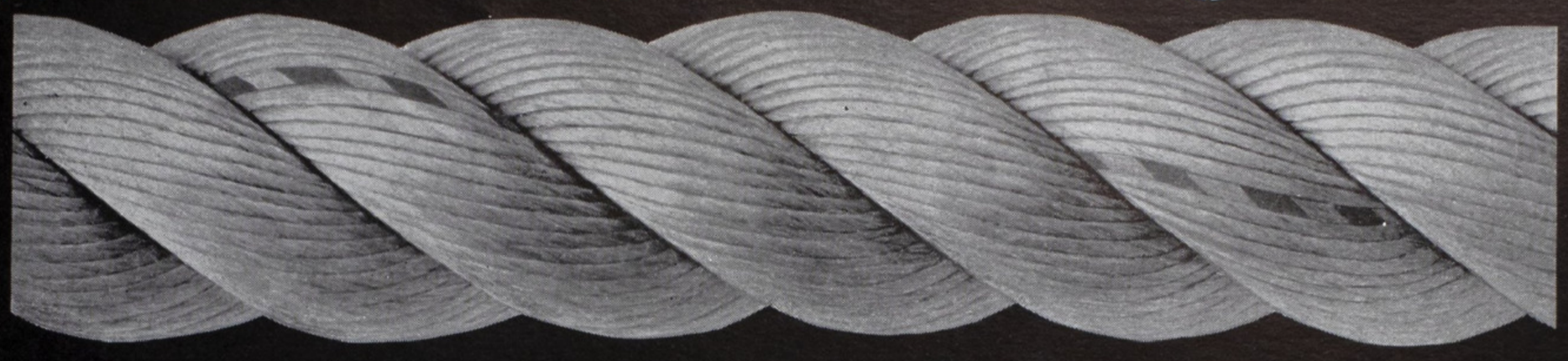

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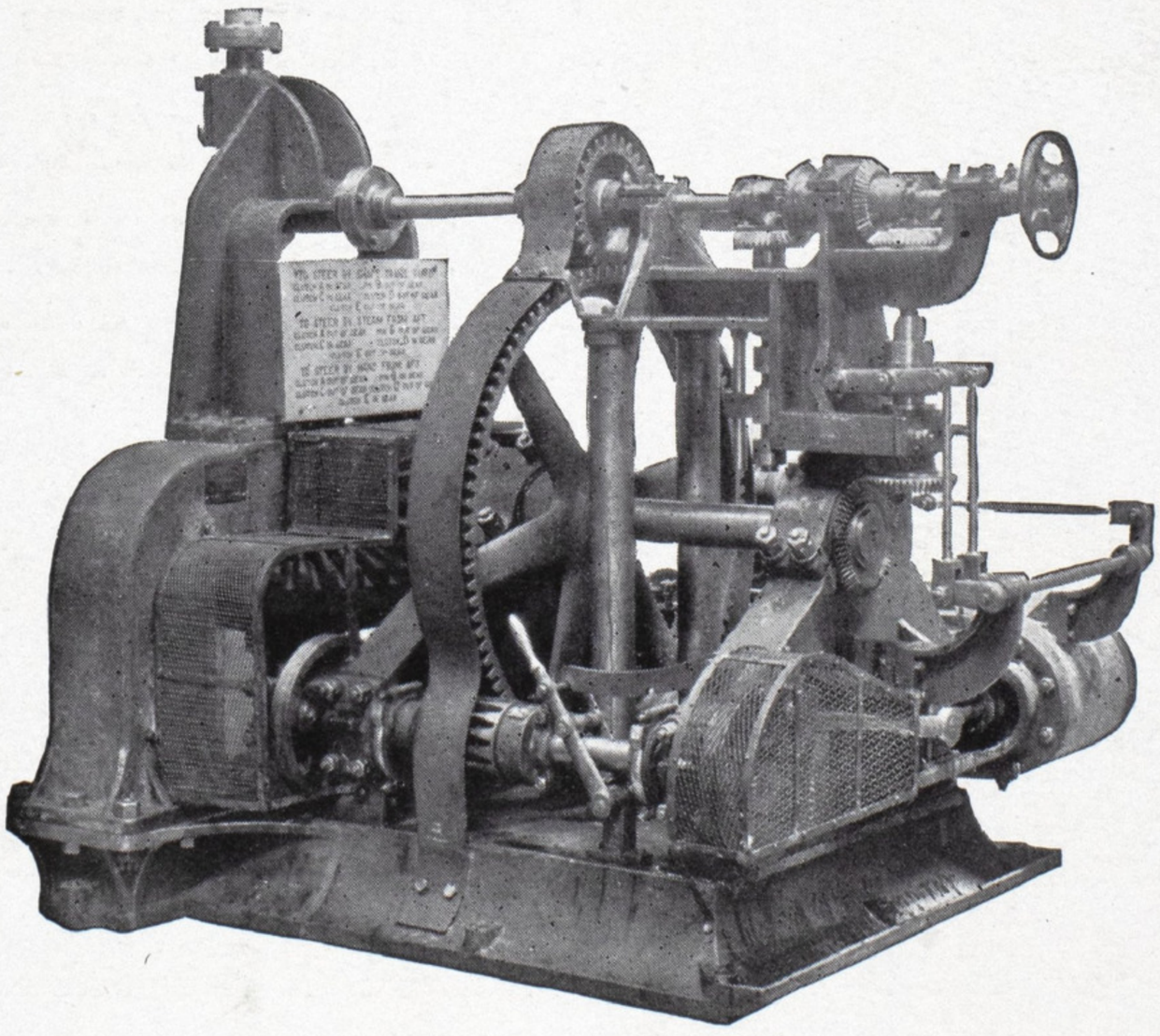

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